

# **EXHIBIT A-2**

**FPC – CP&L Uniform & Appearance Guidelines  
For Pole Inspection, Treatment, & Reinforcement Contractors**

**Appearance:**

**Personal appearance** must be neat and clean.

**Facial hair** must be neat and trimmed (trimmed beards are allowed)

**Long hair** must be restrained (i.e., braided or tied)

**Uniform:**

**Shirt** – Uniform shirt with Contractor's Logo shall be worn at all times with the shirttail tucked into the pants. T-shirts with the Contractor's Logo are acceptable as a uniform shirt. No tank tops or sleeveless shirts shall be allowed.

**Jackets** when worn must display the Contractor's Logo.

**Pants** shall be full length; Black, Blue, Khaki, or Grey in color and must be hemmed.

**Coveralls** when worn must display the Contractor's Logo.

**Hard Hats** are part of the uniform and must display the Contractor's Logo.

**Shoes** must be hard toed and have hard soles.

**Notes:**

Uniforms must meet all applicable OSHA requirements and regulations.

Pants, shirts, coveralls, and jackets must not have holes or be soiled and must be neat in appearance.

New Contractor employees must be wearing an appropriate uniform within 30 days.

During the initial 30 days, they will be expected to wear clothes that meet all OSHA regulations and present a professional image.

These rules must be followed at all times by Contractor employees while working on the FPC or CP&L distribution system.

**FPC - CP&L**  
**POLE INSPECTION, TREATMENT, & REINFORCEMENT CONTRACTORS**  
**MONTHLY SAFETY INFORMATION FORM**  
(PLEASE SUBMIT BY THE 10<sup>TH</sup> OF THE MONTH)

NAME OF CONTRACTOR: \_\_\_\_\_  
(Please use corporate name)

MONTH BEING REPORTED: \_\_\_\_\_

	<u>Month</u>	<u>Year-To-Date</u>
1. Total number of accidents which did not result in a lost work day case for all of the personnel which work on or support CP&L's or FPC's distribution system.	_____	_____
2. Total number of lost work day cases for all of the personnel which work on or support CP&L's or FPC's distribution system.	_____	_____
3. For the lost work day cases reported in #2, please list the total number of full days away from work during the month: (If lost days are continuing, please cut off at end of month and forward the additional days on following reports.)	_____	_____
4. Total number of manhours worked on or in support of CP&L's or FPC's distribution system.	_____	_____
5. Total number of fatalities.	_____	_____

**SUBMITTED BY**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Tel. No. \_\_\_\_\_

SEND REPORT TO: FPC – Kevin Sullivan, FPC, 2600 Lake Lucien Drive, Suite 400, MT3B, Maitland, FL 32751-7234; or FAX to (407) 475-2210, or E-Mail [kevin.c.sullivan@fpc.com](mailto:kevin.c.sullivan@fpc.com)

CP&L - Donald Gower, CP&L, P. O. Box 1551 (OHS 5), Raleigh, NC 27602  
or FAX to (919) 546-4699 or E-Mail [donald.gower@cplc.com](mailto:donald.gower@cplc.com)

**CP&L 2001 RATES**  
**POLE INSPECTION & TREATMENT**

- Data reporting and collection shall be collected via use of field hand-held device or laptop computers.
- Per unit price will include all data collection, data reporting and notifications, all undertakings as stipulated in the In-Service Wood Pole Inspection and Remedial Treatment Specifications document or as listed in the Pole Inspection, Treatment, & Reinforcement Work Scope document.
- Items 1, 2, 3, & 4 below are all-inclusive prices that include inspection and re-stenciling missing pole numbers for each pole

		Northern	Southern	Eastern	Western
1.	Excavate with internal treatment (wood fume and/or hollow heart)	\$ 34.50	\$ 34.50	\$ 31.35	\$ 42.60
2.	Excavate without internal treatment	\$ 23.50	\$ 23.50	\$ 20.35	\$ 31.60
3.	Non Excavate with internal treatment (wood fume and/or hollow heart)	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00
4.	Non Excavate without internal treatment	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00
5.	Visual Inspection, no other work required	\$ 4.00	\$ 4.00	\$ 4.00	\$ 4.00
6.	Visual Inspection, pole rejected	\$ 4.00	\$ 4.00	\$ 4.00	\$ 4.00
7.	Visual Inspection, pole rejected; sound & bore	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00
8.	Visual Inspection, pole rejected; sound & bore; excavated	\$ 22.50	\$ 22.50	\$ 19.35	\$ 30.60
9.	Groundwire Repair	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00
10.	Install Guy Markers	\$ 3.50	\$ 3.50	\$ 3.50	\$ 3.50
11.	Install Groundwire Molding	\$ 2.86	\$ 2.86	\$ 2.86	\$ 2.86
12.	Extended Visual, at CP&L's request	\$ 1.25	\$ 1.25	\$ 1.25	\$ 1.25

Rates are subject to the yearly Economic Cost Index increase, effective January 1, 2002.

**FPC 2001 RATES**  
**POLE INSPECTION & TREATMENT**

- Data reporting and collection shall be collected via use of field hand-held device or laptop computers.
- Per unit price will include all data collection, data reporting and notifications, all undertakings as stipulated in the In-Service Wood Pole Inspection and Remedial Treatment Specifications document or as listed in the Pole Inspection, Treatment, & Reinforcement Work Scope document.
- Items 1, 2, 3, & 4 below are all-inclusive prices that include inspection and re-stenciling missing pole numbers for each pole

		Coastal	Central
1.	Excavate with internal treatment (wood fume and/or hollow heart)	\$ 25.79	\$ 25.79
2.	Excavate without internal treatment	\$ 17.95	\$ 17.95
3.	Non Excavate with internal treatment (wood fume and/or hollow heart)	\$ 13.30	\$ 13.30
4.	Non Excavate without internal treatment	\$ 4.96	\$ 4.96
5.	Visual Inspection, no other work required	\$ 4.60	\$ 4.60
6.	Visual Inspection, pole rejected	\$ 4.60	\$ 4.60
7.	Visual Inspection, pole rejected; sound & bore	<del>\$ 4.96</del>	<del>\$ 4.96</del>
8.	Visual Inspection, pole rejected; sound & bore; excavated	\$ 15.28	\$ 15.28
9.	Groundwire Repair	\$ 8.46	\$ 8.46
10.	Install Guy Markers	\$ 3.62	\$ 3.62
11.	Install Groundwire Molding	\$ 2.86	\$ 2.86
12.	Extended Visual, at FPC's request	\$ 2.25	\$ 2.25

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Rates are subject to the yearly Economic Cost Index increase, effective January 1, 2002.

which, upon inspection, is found to be a candidate for external preservative treatment, provided enough sound wood remains.

Treatment shall consist of ingredients listed under Section 5.2.

- 1.4.4 Rejected Poles: A rejected pole is any pole designated by the owner which, upon inspection, is found deteriorated below the required minimum as indicated on the circumference table supplied or approved by the owner.
- 1.4.5 Externally Treated Reject Pole: A rejected pole that, after inspection, meets criteria for pole restoration (reinforcing.) A pole found to be restorable will be groundline treated. The inspector will make a notation on the pole report form as to whether a pole can or cannot be restored. If the pole top or pole hardware has defects, this will be noted in the remarks column on the pole report form.
- 1.4.6 Internal Treatment: Contractor's E.P.A. registered insecticide and preservative (Section 5.4) solution is applied internally under 80 PSI minimum pressure to any chambers and internal decay voids that constitute a size of 1" or larger.
- 1.4.7 Fumigant Treatment: Application of EPA registered fumigant containing 32.7% Sodium Methylthiocarbamate (Woodfume).
- 1.4.8 Priority Pole: A pole that is in need of immediate replacement; usually has average shell of one inch or less.

## 2.0 GENERAL PRECAUTIONS AND REQUIREMENTS FOR PRESERVATIVE APPLICATIONS

### 2.1 General Restrictions and Requirements

All preservatives shall be handled and applied in a manner that will prevent damage to vegetation and property. Only preservatives registered by the Environmental Protection Agency and the appropriate State Department of Agriculture for the intended use will be considered for approval by the owner.

No preservatives shall be applied by the contractor where a pole is located in a vegetable garden or within ten (10) feet of a stream or standing water body or well.

Any container in which a preservative is stored shall be securely locked or bolted to vehicles on the right-of-way and kept locked when left unattended. Empty preservative containers shall be removed from the right-of-way and kept in a locked compartment until disposal. Disposal of preservatives and their containers shall be in accordance with the rules and regulations of all appropriate Federal and State agencies.

### 2.2 Pesticide Licensing and Reporting Requirements

The contractor shall be a certified commercial pesticide business for the preservative application set forth under this contract, and shall have each crew supervised by a full time Supervisor who is licensed and certified by the State. The contractor shall be responsible for the accurate recording and submitting of all pesticide usage forms required by the various pesticide regulatory agencies and for meeting all applicable Federal and State rules and regulations.

The contractor is required to have in his possession copies of the preservative labels of all the preservatives, insecticides and fumigants being used. The labels shall list the preservative composition, description, directions for use, precautionary statements, warnings, environmental hazards, practical treatments, storage and disposal instructions and any other relevant information about the preservatives used. Upon request, the labels must be shown to anyone desiring this information.

### 2.3 Spill Prevention

Preservative spills shall be immediately cleaned up in a manner consistent with label restrictions, Federal and

State regulations, and acceptable environmental procedures.

The contractor shall provide each crew with a spill kit containing sufficient materials for cleaning up and neutralizing potential spills of liquid preservatives. The spill kit shall consist of, but not be limited to the following materials: absorption material (such as sawdust or oil dry), baking soda or laundry detergent, ammonia (undiluted) and trash bags for disposal of waste.

#### 2.4 Proper Equipment

The contractor shall provide each crew with the following EPA required equipment: goggles, sleeves, non-permeable gloves and aprons, hard hats and a change of clothing.

The contractor shall provide a truck that has covers and locks adequate to satisfy federal and state DOT regulations in which to store and transport the preservatives.

#### 2.5 Pesticide Training

Each pole inspector or foreman shall be required to pass a pesticide training program which addresses biology of wood destroying insects and fungi, the proper and safe handling, storage, disposal and transport of pesticides, product labels and material safety data sheets, emergency procedures for pesticide spills, etc. The contractor's Pesticide Training Program is to be in addition to state requirements for applicator licensing.

- 2.5.1 Hazard Communication and Safety Program: The contractor shall provide to its employees a hazard communication program which addresses the purpose of using pesticides, material safety data sheets and product labels, protective safety equipment and clothing and product information. A safety manual and program is to be provided and utilized by the contractor and its employees.

### **3.0 INSPECTION**

#### 3.1 Preparation

When work is to be done in close proximity to a home or in the backyard of a home, the property owner should be notified as to what is being accomplished. Brush will be removed from around the pole to allow for proper excavation, inspection and/or treatment unless permission for removal is denied by property owner. Denial will be indicated in the remarks column on the pole report. If permission for excavation is denied, the pole will be sounded and bored and fumigant treated, providing the pole is serviceable. Contractor will not inspect or perform work on poles inaccessible by acts of God or by any causes beyond the control of contractor. Reason for the lack of inspection will be noted in the remarks column of the pole report.

#### 3.2 Above-Ground Inspection

A visual inspection of all poles shall be made from groundline to the top of the pole. Items listed by Owner requiring maintenance shall be noted on report sheet. If the pole is obviously not suited for continued service due to serious defects, it shall not be tested further but simply be reported and marked on the inspection form as a reported reject.

#### 3.3 Excavation

All non-CCA poles 20 years or older passing the above ground visual inspection shall be excavated around to a minimum depth of 18" below groundline. CCA poles shall be inspected according to section 1.4.2 of this document. The excavation will be approximately 10" from the pole at ground level and 4" from the pole at the 18" depth. For excavation in lawns, sod grass areas or gardens, care will be taken to keep surrounding area as clean as possible. The sod around pole shall be carefully cut and neatly stacked. Poles installed on slopes shall be excavated to a minimum depth of 18" on the down slope side and 18" on the high side. Tarpaulins or ground cloths shall be used at all times.

#### 3.4 Extended Visual Inspection (Optional upon request of owner)

A visual inspection of the following items shall be performed by the Contractor, and a report submitted with the results as specified in the document entitled Distribution Facilities Inspection Specifications. Any special conditions discovered during the inspection process will be noted and included in the weekly report.

An extended visual inspection shall be performed on all poles in the area, including those not treated or inspected, such as concrete, fiberglass, CCA poles, etc.

### 3.5 Sounding

Poles shall be sounded in a circumfluous manner from as high as the inspector can reach to the exposed groundline area in order to locate interior pockets of decay. Hammer marks should be visible to indicate that the area was sounded.

### 3.6 Boring

Inspector shall bore pole with a 3/8" bit. At least one test boring below groundline shall be taken one inch to the side of, and parallel to, the deepest check extending below groundline. The boring shall be taken at a 45 degree angle and proceed past the center of the pole in depth. A shell thickness indicator approved by the owner shall be used to detect the extent of the interior decay.

If heart rot or enclosed decay pockets are evident in a pole, a minimum of five (5) borings will be taken to determine the size and extent of decay. Bored holes shall be plugged with tight-fitting CCA treated wood dowels.

### 3.7 Chipping

Significant loose and decayed wood is to be removed from 18" below groundline to 6" above groundline. A quality-chipping tool will be used for this procedure to obtain a smooth, clean removal of wood. External decay pockets will be shaved or chipped to remove decay from pole. It is essential that exterior decay be removed from the hole and surrounding ground and disposed of properly. Care should be taken not to remove good wood, as this will reduce the strength of the pole. The pole will be scraped using a check scraper to remove dirt from treatment zone. **Do not chip a CCA pole.**

**CAUTION:** Care must be taken not to break the ground wire or to disconnect it from the ground rod. If broken, the wire must be repaired using a compression connector. (WEAR RUBBER GLOVES WHEN PERFORMING THIS WORK.) Grounds must be carefully pulled away from the pole so as not to interfere with the work, and they must be restored to their original location when work is completed.

## **4.0 EVALUATION**

### 4.1 Determine Minimum Circumference

Deductions shall be made from the original ground line circumference of a pole to account for hollow heart, internal decay pockets, and removal of external decay. The measured effective critical circumference shall be at the point of greatest decay removal in the vicinity of the ground line taking into account the above applicable deductions. A pole circumference calculator approved by owner shall be used to determine the measured effective critical circumference.

Measure minimum circumference at or below groundline wherever the least sound wood is present. Make adjustments in circumference to account for external decay pockets and internal decay in accordance with loading tables approved by Owner. Check effective circumference against loading tables supplied or approved by Owner. To remain in service as is, the pole shall meet minimum NESC strength requirements (which is 2/3's of the strength required at installation). Poles below minimum circumference (which is 82% for guyed poles, 87% for unguyed poles) shall be rejected, and so marked in the field and reported. Poles with a minimum shell equal to or greater than 2 inches will be treated; poles with a shell thickness less than the above-specified minimum will be rejected. Poles with a minimum shell of 1 inch(es) or 50% of original



circumference or less will be designated a "Priority Pole" or another appropriate name.

"Priority Poles" shall be reported to the owner via the prescribed method within 24 hours.

#### 4.2 Evaluation for Reinforcement

Poles rejected because of groundline decay shall be visually checked to determine if they can be reinforced. Poles with serious top defects or without sufficient wood at 26 inches above ground (truss band location) will be immediately rejected and no further work performed on the pole. If the pole is not a candidate for reinforcing and/or if the appearance of any attachment seems improper, this information must be supplied to the company's designated representative and no work is to be done until such conditions have been corrected.

After initial inspection has revealed that the pole is below required strength, the following shall be performed:

- 4.2.1. Sound the pole thoroughly above groundline again. Concentrate at the zone 15" to 4 ½ feet above groundline.
- 4.2.2. For tangent poles, drill at 4 ½ feet above G/L on the face of the pole in line with the conductors. For suspension angles and terminal/angle dead end poles, drill at 4 ½ feet above G/L on the face of the pole perpendicular to the bisect of the angle of the conductors (direction of fall). If this boring indicates less than a 4" shell thickness, a second boring is made opposite (180 degrees from) the first boring whenever possible. Other borings should be taken as necessary. If the average shell thickness is 4" or more, go to step 4.2.3; if not, the pole should be checked at 5 ½ feet for an average shell thickness of 4" or more. If the average shell thickness at 5 ½ feet is found to be 4", go to 4.2.3; if not, then the pole must be rejected.
- 4.2.3. Drill at 15" above G/L against the line of lead. If this boring indicates less than a 2" shell thickness, a second boring is made opposite (180° from) the first boring whenever possible. Other borings should be taken as necessary. If the average shell thickness at 15" is less than 2", go to 4.2.4. If the average shell is 2" or greater, reinforce the pole.
- 4.2.4. Poles with less 2" average shell thickness at 15" can be reinforced if there is a 2" average shell thickness at 26" and the criteria in step 4.2.2 is met. For tangent poles, drill at 26" above G/L on the face of the pole in line with the conductors. For suspension angles and terminal/angle dead end poles, drill at 26" above G/L on the face of the pole perpendicular to the bisect of the angle of the conductors (direction of fall). If this boring indicates less than a 2" average shell thickness, a second boring is made opposite (180 degrees from) the first boring whenever possible. Other borings should be taken as necessary. If the average shell thickness is 2" or greater, reinforce the pole.

## **5.0 TREATMENT**

### **5.1 General**

All poles 20 years and older and suitable shall be treated in accordance with "External Groundline Treatment". If internal decay is indicated, an appropriate solution shall be selected and applied. All poles less than 20 years old shall be visually inspected and reported only. CCA poles older than 20 years shall be sounded and a single bore hole performed. If internal decay is present, they should be fumigated according to Paragraph 5.3.

#### **5.1.1 Retreatment of Previously Treated Poles**

All poles that have been treated in a previous cycle shall be checked and retreated with similar type preservative as prior treatment(s).

#### **5.1.2 Retreatment of Reinforced Poles**

All reinforced poles that have been treated in a previous cycle shall be checked and retreated. The pole shall be groundline treated, wood fume treated in the lower band area, and hollow-heart treated in the upper band area.

## 5.2 External Groundline Treatment

All poles which are excavated and pass inspection (serviceable) are to be groundline treated with a preservative paste approved by owner which shall be applied to the pole (a minimum of 1/16" thick) from 18" below groundline to 2" above groundline. Preservative paste shall have the following minimum percentages of active ingredients:

44.42 %	Sodium fluoride	44.42 %	Sodium fluoride
45.62 %	Creosote oil	3.10 %	Potassium bichromate
3.20%	Sodium Dichromate	45.62 %	Creosote
6.76 %	Inert ingredients	6.86 %	Inerts

Preservative treatment should penetrate a minimum of two (2) inches into the pole. Long-term retention studies should be made available to assure results.

Liberal treatment and fill all exposed pockets and checks using brush or trowel. Where obstructions occur such as fences, curbs, and walls, the preservative shall be applied in excessive amounts next to obstruction to insure complete coverage. Such conditions shall be recorded.

### 5.2.1 Wrapping of External Treatment

A moisture barrier equivalent to "OsmoShield" is to be applied over the wood preservative. The moisture barrier shall cover preservative at 18" depth and extend 2" above the top of treatment zone, for a total of 22" wide. It shall be of sufficient length to go around the pole with an overlap of approximately 4" and shall be stapled to the pole at the top and side seams of the barrier. Pasture wrap shall also be used in areas of livestock; it will be stapled to top of the moisture barrier to act as an additional protective barrier. The mil thickness of the moisture barrier shall not be less than 4 mils thick.

## 5.3 Fumigant Treatment

### 5.3.1 Application

Woodfume-shall be applied when prescribed below:

All poles that meet the following criteria shall be treated internally as follows: all poles which cannot be excavated (i.e., poles in concrete, poles with risers, poles with phone drops, etc.); all poles which cannot be 75% excavated due to obstructions (i.e., curbs, pole keys, large roots, fences etc.), and all poles where incipient decay is present.

WoodFume (32.7% Sodium Methyldithiocarbamate, 67.3% Inert Ingredients)

5.3.2 Application rate shall be as follows:

<u>Pole Circumference</u>	<u>Application Rate</u>	<u># Holes Drilled</u>
Less than 32"	1 pint	4
32"	1 pint	4
45" or greater	1.5 pints	6

5.3.3 Bore holes, 7/8" in diameter, 12" deep for distribution.

- 5.3.4 All poles shall be bored above ground toward the center of the pole at an angle of no less than 45 degrees. Care shall be taken to avoid going through the pole or seasoning checks.
- 5.3.5 Borings shall start at the appropriate location and shall be evenly spaced up the pole in a spiral pattern. No less than 6 vertical inches shall separate adjacent holes.
- 5.3.6 All holes shall be plugged using CCA treated wood dowels 3" in length and 15/16" in diameter.

#### 5.4 Internal Treatment

Poles containing decay pockets of 1" or larger shall be treated. Internal treatments will be Hollow Heart internal treatment solution or a Copper Naphthenate Solution.

10.90 %	Sodium Fluoride	19.25 %	Copper Naphthenate -
4.80 %	Sodium Dichromate		(2% Copper as metal)
5.36 %	Tri-Sodium Arsenate (or)	80.75 %	
78.94 %	Inert Ingredients	100.00 %	
100.00			
%			

Internal treatment shall be applied to all holes bored with a minimum of 80 PSI pressure. Sufficient 3/8" diameter holes shall be bored to the center of the pole starting from groundline in a spiral fashion. Rejected poles to be reinforced must have at least nine (9) holes bored to the center of the pole. The preservative is pumped into the bottom hole until preservative runs out the next higher hole. This hole is then plugged and additional preservative is pumped into the cavity until the cavity is filled or a maximum of one gallon is used. For internal treatment, a 3/8" by 18" bit will be used to drill holes; all holes will be plugged with a 7/16" treated wood dowel. If ants are encountered in pole, sound the pole to locate top of ant chamber and drill enough holes to thoroughly treat wood and flood ant galleries.

Appropriate safety equipment must be used when applying internal treatment. Avoid splashing onto the surrounding area.

### 6.0 RESTORATION OF WORK SITE

#### 6.1 Backfilling

After excavation and/or treatment, all poles will be solidly back-filled. The first half of excavation will be back-filled and tamped completely around the pole; the second half back-filled and tamped completely around the pole. The excess earth should be banked up to a maximum of 3" above normal ground level to allow for settlement. In grass areas the sod shall be carefully placed around the pole. Rocks or stones should not be laid against the pole except where they serve to key the pole or where no other fill is available. Extreme care should be taken not to tear the moisture barrier while back filling.

#### 6.2 Clean-up

No debris, loose dirt, etc., is to be left in the pole area. Private property turf, including that between curb and sidewalk, bushes, and plants and shrubbery are to be replaced with care. If any preservative is spilled on the ground, it shall be cleaned up immediately. All containers shall be disposed of according to approved environmental practices.

### 7.0 POLE MARKING AND RECORDS

#### 7.1 Tagging (Example Attached -see appendix A)

Poles rejected but capable of being restored are to be properly marked with an appropriate reject tag.

The contractor's inspector will make a notation on the pole inspection and treating report as to whether the pole can or cannot be restored. If the pole has top defects, this will be noted in the remarks column.

All rejected poles are to have one square reject tag placed on them at approximately 7 feet from groundline. In addition to the reject tag, red flagging, or spray paint, to be furnished by the contractor, may be used to help in the identification of priority or rejected poles.

Priority poles are to have two square reject tags at approximately 7' from groundline.

## 7.2 Data Collection

All information collected in the field shall be entered into a handheld computer while in the field. Information entered shall have an accuracy of at least 98%.

## 7.3 Pole Inspection Detail Reports

This report shall provide individual pole information for all poles inspected during the week by an individual Inspector. It shall be provided no more than one week after the work is performed. All information listed below shall be contained in this report.

**Heading** – Each report sheet shall have the information listed below in the heading:

- Utility Name
- Contractor Name
- Inspector Name
- Supervisor Name
- Division (where relevant)
- Page Number
- Page Number
- District (where relevant)
- Line/Map Number

### **Report Content:**

- Pole Number
- Manufacturer
- Type of Treatment
- Year Set
- Class
- Original G/L Circumference
- Height
- Species
- Effective G/L Circumference
- Pole not on map
- Facilities not in field
- 

Column headings should be available to mark the appropriate item or items performed on each pole. Include the categories listed below:

- Treat
- Sound and Bore
- Company that performed
- Reject
- Visual
- Initial Treatment
- Treated Reject
- Partial Treat
- Last Year Treated
- Fumigant
- Internal Treat
- Repair Groundwire
- Decay This Cycle
- Install Guy Marker
- Stencil

Remarks and Note section should spell out words instead of abbreviating them. Remarks section should be capable of describing all decay conditions as well as maintenance items, which should be noted.

## 7.4 Weekly Inspection and Treatment Summary

This report shall summarize an individual Inspector's work for a specific week. It shall provide the total number, percentage and cost of all repaired items, installations, inspection and treatment categories. The total weekly expenditure as well as the average cost per pole shall be calculated on this report. It shall be attached to each POLE INSPECTION DETAIL REPORT each week.

## 7.5 Poles Needing Maintenance Work Summary

This report shall summarize poles needing maintenance work for an individual week. It shall be attached to the appropriate POLE INSPECTION DETAIL REPORT each week. The report shall list the following information:

- Map/Line
- Pole Number
- Maintenance Required

- Class
- Height
- Year Set

#### 7.6 Poles Rejected Summary

This report shall summarize all rejects found for an individual week. It shall be attached to the appropriate POLE INSPECTION DETAIL REPORT each week. The report shall list the following information:

- Line/Map
- Type of Treatment
- Pole Number
- If Restorable
- Height
- Inspection Date
- Class
- Original G/L Circumference
- Location
- Manufacturer
- Year Set
- Effective G/L Circumference
- Restorable summary
- Non-restorable summary

#### 7.7 Year to Date Inspection and Treatment Summary

This report shall provide Region totals as well as company wide totals, percentages and cost of all repaired items, installations, inspection and treatment categories. The total contract expenditure as well as the average cost per pole shall be calculated on this report. This report shall be provided on a weekly basis.

#### 7.8 Computer Media

All data collected, if required by the contract and specifications, will be supplied to the Owner. Format to be an Access Database or an ASCII file. Details to be worked out with the contractor prior to any being performed.

## ***CP&L 2001 RATES POLE REINFORCEMENT***

- Data reporting and collection shall be collected via use of field hand-held device or laptop computers.
- Per unit price will include all data collection, data reporting and notifications, all undertakings as stipulated in the Wood Pole Reinforcement document or as listed in the Pole Inspection, Treatment, & Reinforcement Work Scope document.
- One all-inclusive fee to include internal treatment (hollow heart), fumigant treatment, and reinforcement of pole:

### **TRUSS SIZE:**

#### **Single Truss**

6X10	\$ 319 per truss
7X10	\$ 323 per truss
8X10	\$ 336 per truss
9X10	\$ 384 per truss
980X10	\$ 409 per truss
1080X11	\$ 455 per truss
1180X11	\$ 486 per truss
1280X11	\$ 521 per truss
1380X11	\$ 579 per truss
1480X11	\$ 604 per truss
1580X12	\$ 647 per truss
1680X12	\$ 667 per truss

#### **Double Truss**

2-9X10	\$ 627 per installation
2-980X10	\$ 674 per installation
2-1080X11	\$ 766 per installation
2-1180X11	\$ 832 per installation
2-1280X11	\$ 906 per installation
2-1380X11	\$ 989 per installation
2-1480X11	\$ 1042 per installation
2-1580X12	\$ 1128 per installation
2-1680X12	\$ 1165 per installation

### **PROPOSED MISCELLANEOUS CATERGORY**

1. Trip charge, pole has been replaced by CP&L: \$ 45.00 per pole.
2. Rejected Pole charge, pole is not suitable for reinforcing \$ 45.00 per pole. (Only applicable where the original pole inspection was performed by someone other than Osmose)

### **TERM of RATES**

The above rates are valid for CP&L's Western Region.

Rates are subject to the yearly Economic Cost Index increase, effective January 1, 2002.

#### **Note:**

No charge to CP&L in cases where reinforcing crew determines that pole is not suitable for reinforcing, and shall be rejected if original inspection was done by Osmose.

## ***CP&L 2001 RATES POLE REINFORCEMENT***

- Data reporting and collection shall be collected via use of field hand-held device or laptop computers.
- Per unit price will include all data collection, data reporting and notifications, all undertakings as stipulated in the Wood Pole Reinforcement document or as listed in the Pole Inspection, Treatment, & Reinforcement Work Scope document.
- One all-inclusive fee to include internal treatment (hollow heart), fumigant treatment, and reinforcement of pole:

### **TRUSS SIZE:**

#### **Single Truss**

6X10	\$ 259 per truss
7X10	\$ 263 per truss
8X10	\$ 277 per truss
9X10	\$ 314 per truss
980X10	\$ 339 per truss
1080X11	\$ 378 per truss
1180X11	\$ 402 per truss
1280X11	\$ 429 per truss
1380X11	\$ 465 per truss
1480X11	\$ 487 per truss
1580X12	\$ 527 per truss
1680X12	\$ 543 per truss

#### **Double Truss**

2-9X10	\$ 499 per installation
2-980X10	\$ 546 per installation
2-1080X11	\$ 622 per installation
2-1180X11	\$ 668 per installation
2-1280X11	\$ 718 per installation
2-1380X11	\$ 770 per installation
2-1480X11	\$ 816 per installation
2-1580X12	\$ 896 per installation
2-1680X12	\$ 925 per installation

### **PROPOSED MISCELLANEOUS CATEGORY**

1. Trip charge, pole has been replaced by CP&L: \$ 45.00 per pole.
2. Rejected Pole charge, pole is not suitable for reinforcing \$ 45.00 per pole. (Only applicable where the original pole inspection was performed by someone other than Osmose)

### **TERM of RATES**

The above rates are valid for CP&L's Northern, Eastern, and Southern Regions.  
Rates are subject to the yearly Economic Cost Index increase, effective January 1, 2002.

#### **Note:**

No charge to CP&L in cases where reinforcing crew determines that pole is not suitable for reinforcing, and shall be rejected if original inspection was done by Osmose.

## ***FPC 2001 RATES POLE REINFORCEMENT***

- Data reporting and collection shall be collected via use of field hand-held device or laptop computers.
- Per unit price will include all data collection, data reporting and notifications, all undertakings as stipulated in the Wood Pole Reinforcement document or as listed in the Pole Inspection, Treatment, & Reinforcement Work Scope document.
- One all-inclusive fee to include internal treatment (hollow heart), fumigant treatment, and reinforcement of pole:

### **TRUSS SIZE:**

#### **Single Truss**

6X10	\$ 240 per truss
7X10	\$ 244 per truss
8X10	\$ 258 per truss
9X10	\$ 291 per truss
980X10	\$ 318 per truss
1080X11	\$ 356 per truss
1180X11	\$ 377 per truss
1280X11	\$ 400 per truss
1380X11	\$ 428 per truss
1480X11	\$ 450 per truss
1580X12	\$ 491 per truss
1680X12	\$ 506 per truss

#### **Double Truss**

2-9X10	\$ 438 per installation
2-980X10	\$ 488 per installation
2-1080X11	\$ 561 per installation
2-1180X11	\$ 602 per installation
2-1280X11	\$ 646 per installation
2-1380X11	\$ 692 per installation
2-1480X11	\$ 738 per installation
2-1580X12	\$ 820 per installation
2-1680X12	\$ 849 per installation

### **PROPOSED MISCELLANEOUS CATERGORY**

1. Trip charge, pole has been replaced by FPC: \$ 24.00 per pole.
2. Rejected Pole charge, pole is not suitable for reinforcing \$ 39.00 per pole. (Only applicable where the original pole inspection was performed by someone other than Osmose)

### **TERM of RATES**

The above rates are valid for FPC's Coastal and Central Regions.

Rates are subject to the yearly Economic Cost Index increase, effective January 1, 2002.

#### **Note:**

No charge to FPC in cases where reinforcing crew determines that pole is not suitable for reinforcing, and shall be rejected if original inspection was done by Osmose.





## Exhibit B

### Additional Information Regarding Contractor's Pole Inspection and Groundline Treatment Programs Relative to Best Practices

Pole Owners should be aware that the present art of inspecting poles and equipment and the site where these items are typically located is not perfect, and there is no test equipment or methods to make it so. When evaluating wood poles, there are variables affecting wood quality for which the Contractor has no control. These would include the species of timber involved, the effectiveness or lack of original treatment, soil and climate conditions, brash or brittle wood, including brash wood caused by soft rot which lacks required strength, but is not always able to be detected by any known field methods, as well as insect activity, bird damage or lightning damage occurring or resuming after the time of inspection. For these and similar reasons, perfection is not always possible, even with highly trained professional inspectors and electronic instrumentation.

When attempting to identify defective equipment in field conditions, there are also additional variables over which a Contractor has little or no influence. Trees and other vegetation on utility right-of-ways continue to grow after the inspection date. New attachments and lines are added to poles and old equipment is removed by power, telephone and cable television personnel and line construction contractors. Utility subscribers and other can build, alter or demolish various structures, and roads and driveways are added or rerouted, which violates clearance requirements and cable burial depths without Pole Owners or inspectors being notified. **The longer time passes after an inspection is performed, the less reliable the data on attachments, defective equipment and clearances becomes.**

Pole Owners acknowledge that the Contractor cannot in any way assume responsibility for damage or injuries caused by factors or variables outside of the Contractor's control.

More specific information follows which should be known by utility management and those who work on or near transmission, distribution and other outside plant facilities.

#### 1. Pole Inspection Methods

The primary groundline inspection methods follow along with observations based on the experience of Osmose in regard to their reliability. Some or all apply to any individual contract with the Owner's instructions prevailing. The Owner has determined the frequency and type of inspection and application of supplemental treatments and provides specifications on how to classify deteriorated poles.

As a general rule, the more excavation that is done prior to inspection, the more accurate the groundline inspection process can be.

When evaluating a damaged pole, the inspector approximates the size, extent and nature of the damage and with the aid of the Owner, reject criteria and measuring devices, converts the loss of the pole's cross sectional area to an equivalent reduced circumference of sound wood. This is not an exact science and conclusions about actual pole strength should not be based on effective circumstances estimates alone. The Owner needs to independently verify pole strength.

- a) Visual Inspection from Ground Level - This method is intended to locate only readily visible gross defects which can be seen with the naked eye from ground level. Additionally, vegetation may obscure parts of the pole. Consequently, this inspection method provides minimum indication of wood strength. If used alone, this inspection provides little information to help the Owner improve its pole plant. It will miss most priority and reject poles. If this is the only inspection method, it should be repeated several times a year.

- b) Sonic Inspection - This method utilizes electronic sonic equipment which primarily measures speed of sound waves from one point on the outside of a pole to another point on the opposite side of a pole in one narrow plane. Based on information gathered during follow-up inspections of many thousands of poles in different geographic areas by the more thorough excavation method described in "e" below, it is the experience of Osmose that the sonic method is not as accurate as the Sound and Bore method described next. Used in conjunction with visual inspection, historical data shows approximately forty to fifty percent (40-50%) of the reject and priority poles will be found. This inspection method should be repeated at least yearly.
- c) Sound and Bore - Without excavation, this method involves utilizing a sounding hammer around the pole from ground level to about eight feet above, followed by one or more borings at the groundline or other area noted to be suspicious by sounding. It is specified by Owners for pole set in pavement where excavation is impractical. It can miss poles without sufficient strength to meet NESC or other mandated overload capacity requirements and there is the possibility of missing those poles with insufficient strength to support the current wire loading. This is particularly true when the decayed area is below ground level or if the inspector's tools do not contact hidden, damaged areas. Used in conjunction with visual inspection, historical data shows approximately fifty to sixty percent (50 to 60%) of reject and priority poles will be found. This inspection procedure should be performed at least yearly.
- d) Partial Excavation Plus Sound and Bore - The primary options specified by Owners in this category are:
- 1) Pushing the soil away from the pole to a depth of four to six inches at two or three locations prior to observing, sounding and making one or more borings.
  - 2) Removing soil to a depth of six inches at one or more points or around the entire perimeter prior to observing, sounding and making one or more borings.
  - 3) Excavating to a depth of 18 inches on one side of a pole prior to observing sounding and making one or more borings.

The above partial excavation procedures can be expected to identify many but not all inspected poles with decay below ground or other condition causing a reduction in the required strength at the groundline. Used in conjunction with visual inspection, historical data show approximately eighty to ninety percent (80-90%) of reject and priority poles will be found. This inspection procedure should be repeated every three to five years depending upon the decay hazard zone where the poles are located.

Excavating around poles may lead to an important shortcoming, unless supplemental treatments are specified by the Owner. The addition of air and moisture to the new backfill may set up conditions more favorable to decay than if no excavation had occurred. Therefore, a supplemental pole treatment is recommended; otherwise, reinspection cycles must be shortened.

If critical decay is found or suspected during any of the above three procedures, excavation to at least 18 inches all the way around the pole is highly recommended. The pole can then be judged more accurately and be classified as sound and treated or recommended for replacement or strength restoration.

- e) 18" to 24" Excavation Plus Sound and Bore Plus Supplemental Treatment - This inspection procedure constitutes the most thorough method known without using electronic instruments, but is nevertheless not perfect because of the variables previously discussed and because obstructions such as rock, adjacent buildings, sidewalks, keys, roots, risers, deep decay, underground cables and other obstacles sometimes prevent "full" excavation and/or treatment with respect to depth, circumference or both. Typically, once the excavation is made to improve inspection accuracy, the procedure also includes treatments. Remedial preservatives help prolong life and avoid the problems resulting from soil disturbance described above; otherwise

reinspection cycles must be shortened. Used in conjunction with visual inspection, historical data shows approximately 98 percent (98%) of reject and priority poles will be found. This inspection procedure should be repeated every six to ten years depending on the decay hazard zone where the poles are located.

## **2. Using Electronic Devices**

All inspection methods may be augmented by the use of electronic devices if specified by the Owner. The Shigometer® is one such device. It measures the pole's relative conductivity which provides information on the presence of decay activity before the wood shows signs of physical breakdown. Another instrument attempts to predict the strength of individual poles based on the characteristics of sound waves. It does not identify the cause of reduced pole strength such as the presence of decay. However, it may provide an indication of low strength resulting from the inherent variability of new pole strength. All of these devices have limitations and will not detect all reject and priority poles.

## **3. Pole Treatment**

The nature and extent of supplemental treatment work has been specified by the Pole Owner. A certain number of poles treated will only just meet Pole Owner's specifications for treatment rather than inspection. Most of these, after treatment, will provide some satisfactory continuing service, but Owner should be aware that a small percentage of poles will fall below strength requirements prior to the next inspection cycle. These poles are in addition to the reject and priority poles not found during the inspections.

## **4. Linemen Safety Considerations**

Linemen must inspect all poles to their satisfaction prior to climbing, whether or not such poles have been inspected by a third party contractor. An inspection and/or treatment tag on a pole is not a guarantee the pole is safe to climb. Pole Owners should inform linemen that the inspection tag only means the pole was inspected in the stated year in accordance with the contract specifications. It is neither an express nor implied warranty that the pole meets NESC or any other standard. Linemen must also practice all other safety procedures when climbing poles and changing out or adding equipment or lines or cutting lines, all of which may create an unbalanced load. An unbalanced load may cause sound poles to fail.

**Pole Inspection, Treatment, & Reinforcement  
Work Scope Document  
Florida Power Corporation (FPC)  
Carolina Power & Light Company (CP&L)**

Overview

Provide supervision, labor, material, tools, reports, chemicals, and equipment necessary to inspect, treat, and reinforce poles on the FPC and CP&L distribution systems. The contract will be for a three-year term, beginning February 1, 2001 thru December 31, 2003.

CP&L intends to annually inspect and treat approximately 38,000 poles, and reinforce approximately 1700 poles. These numbers will vary by year. This is estimated to be as follows for 2001:

- 14,858 inspections and 683 reinforcements in the Northern Region.
- 6882 inspections and 316 reinforcements in the Southern Region.
- 9989 inspections and 410 reinforcements in the Eastern Region.
- 6615 inspections and 318 reinforcements in the Western Region.

FPC intends to annually inspect and treat approximately 47,500 poles, and reinforce approximately 950 poles. These numbers will vary by year. This is estimated to be as follows for 2001:

- 26,045 inspections and 493 reinforcements in the Coastal Region.
- 21,903 inspections and 469 reinforcements in the Central Region.

Contractor will be compensated utilizing the appropriate rate schedule in Attachments E & G.

Working Hours

- Normal working hours for the contractor at FPC and CP&L will be between 7AM – 6 PM, Monday through Friday. The hours may be adjusted upon agreement between the contractor and the appropriate FPC or CP&L Designated Representative.
- Contractor will observe the same holidays as FPC or CP&L unless approved by the appropriate Designated Representative.

Contractor Requirements and Responsibilities

- Contractor is responsible for acquiring all utility locates.
- At least one full time contractor supervisor to be on FPC and/or CP&L property for every four to six crews; never less than one supervisor in general area of work being performed.
- Contractor will provide cell phones for all supervisors and crews/foremen.
- Protect and minimize disturbance of existing ground cover and landscaping.
- Follow all appropriate FPC or CP&L Distribution Specifications as listed in Attachments B & C, and/or appropriate Distribution Specification Manual.
- The Contractor is required to adhere to all NESC, OSHA, DOT, EPA, Federal, State, Local, and appropriate FPC or CP&L rules and regulations.
- Contractor must meet attached uniform guidelines; Attachment D.

- Contractor is responsible for resolving any customer issues, inquiries, complaints, etc.
- Contractor will provide a single point of contact responsible for handling all claims in a Region. Contact must be made with the customer within 24 hours of being notified of the claim. FPC or CP&L designated claims representative must be notified in writing monthly of the disposition of all claims. Specifically, the contractor will be expected to advise the FPC or CP&L claims representative the date of customer contact; date claim resolved and final disposition. If contractor were to deny a claim, the contractor must provide specifics as to basis for denial to the FPC or CP&L claims representative.
- Any damage caused to existing utilities will be the sole responsibility of the Contractor. When work is completed, the job site will be left in a condition acceptable to the designated representative or his designee. Work performed within public streets and road rights-of-way will have pavement and parkway restored to city and/or county and/or state specifications.
- Resolution of conflicts with other utilities is the responsibility of the Contractor.
- The Contractor is responsible for notifying property owners and the public of work being performed. This will include the use of door hangers, badges, signs, or any other means deemed appropriate by FPC or CP&L.
- The Contractor shall, at its expense, obtain all Federal, State, City, and local authority permits and licenses. These must be kept on the job site.
- All traffic control will be the responsibility of the Contractor.
- The Contractor will immediately notify FPC or CP&L designated representative in the event that the Contractor's actions cause an interruption or outage to FPC or CP&L equipment and/or its Customers. Contractor will be assessed a \$500 penalty for any outage that is the result of contractor negligence or inappropriate work practices.
- If hazardous conditions are encountered that contractor can not make safe, contractor must immediately notify FPC or CP&L and standby until appropriate FPC or CP&L personnel arrive.
- Conflicts between the contractor and FPC or CP&L will be resolved via written statements with the appropriate designated representative.
- Contractor will furnish all necessary materials (chemicals, steel truss, etc.)
- Labels and Material Safety Data Sheets must be supplied for all preservatives used.
- Contractor will insure safe storage, handling, and disposal of all chemicals.
- Environmental hazards shall be reported to a CP&L or FPC Supervisor immediately.
- Contractor shall notify FPC or CP&L immediately upon any (1) unintended or excessive application of pesticide, or the application of pesticide in a manner inconsistent with its label, (2) third party inquiries to Contractor regarding the Work or any environmental impacts of same or (3) any incidents which reasonably could lead to third party inquiries described above.
- At least one member of every crew must carry FPC contractor identification (provided by FPC).
- All contractor vehicles must be identified as FPC contractors (magnetic signs provided by FPC).

#### Work Schedule

It is imperative that all work is completed by December 20, of each year, time is of the

essence. Contractor must supply a schedule outlining the number of crews proposed to complete work along with start dates and completion dates. Monthly updates must be provided reflecting progress and revisions to schedule. FPC or CP&L have the right and authority to deviate contractor's schedule. There will be no additional charges to meet the schedule deviation.

### **Safety**

- Contractor will develop, maintain, and administer its own safety program. Contractor must submit a safety plan, detailing how they will accomplish the day to day work activities and insure the safety of their employees and the public. Contractor must review the FPC or CP&L Safety Manual(s) and document any rules that they do not plan to follow as an exception in their safety plan. The contractor's safety plan must convey their plan to insure the safety of their employees specific to any safety rules they list as an exception in the FPC or CP&L Safety Manuals.
- Contractor performance regarding safety is critical to the success of this contract. Contractor will be expected to perform in accordance with the range of acceptable performance in the Meets or Exceeds categories on a monthly and annual basis for the appropriate NAICS code (FPC) and the appropriate SIC code (CP&L). The Contractor is to provide the total number of injuries, the total lost workday cases, and total man-hours worked per month on the FPC or CP&L system only, while performing duties outlined in this contract using Attachment F. This information will to be reported on a monthly basis to Mark Danna (FPC) and Donald Gower (CP&L). The information is to be provided by the tenth of the month.  

Donald Gower Carolina Power & Light Co. PO Box 1551 Raleigh, NC 27602 Fax to (919) 546-4699	Kevin Sullivan Florida Power Corporation 2600 Lake Lucien Drive, Suite 400, MT3B Maitland, FL 32751-7234 Fax to (407) 475-2210
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- The safety rating of the contractors will be determined by the number of incidents per 100 employees, the number of lost work day cases per 100 employees, and whether or not the contractor has a fatality. The incident rate (IR) and lost work day case rate (LWDCR) will be calculated based on the accidents that occur on the Company's system as compared to the number of man-hours worked by the contractor on the Company's system. This goal will be tracked from information provided to the company by the contractor on a monthly basis.

**Example Goal:** Contractor shall achieve a total incident rate and a lost work day case rate on the company's system that is lower than the most recent three years national average for SIC Code 1623.

Example	Annual *National Avg.	<u>Does Not Meet</u> Goal	Meets Goal	Exceeds Goal
Lost Work Days Cases	3.23	>2.91	2.58 to 2.91	<2.26
Total Incident Rate	8.07	>7.26	6.46 to 7.26	<5.649

- If the Contractor does not perform in the Meets or Exceeds categories, FPC or CP&L reserves the right to review these areas and require appropriate corrective action by Contractor. If the situation is not corrected in a reasonable time, FPC or CP&L reserves the right to take further action up to and including termination of the contract.

#### What FPC and CP&L Will Provide

- Furnish the Contractor with files and/or maps showing locations of poles which are subject for inspection, treatment, and reinforcing.
- A single point-of-contact in each Operation Center.

#### General Process

- FPC or CP&L inspectors will periodically inspect work while in progress and will inspect jobs, which have been submitted as completed. Contractor will be required to correct work, to stop work, or to adjust work practices as directed by FPC or CP&L personnel if unsafe work practices are observed.
- FPC and CP&L considers work not in accordance with the specifications or work not in accordance with local, State, or Federal regulations, or unskilled or careless work to be sufficient reason to order the contractor to stop work. Work will not be allowed to resume until deficiencies are corrected to the satisfaction of FPC or CP&L. Further, FPC and CP&L reserve the right to require the contractor to replace any worker before work is allowed to continue. If not satisfied, this will be considered just cause for termination of the contract.
- Quality control inspections shall be performed for each time period of not less than one week's work but not to exceed two weeks' previous work. The quality control will be conducted with the contractor's supervisor and FPC's or CP&L's representative when available. The quality control inspection shall consist of the complete re-inspection of those poles selected by the FPC or CP&L representative to compare the results shown on the pole report inspection, treatment, or reinforcement sheets with those existing in the field. The re-inspection shall include, but not be limited to, the re-excavation, re-treatment, re-wrapping, and reinstallation of the reinforcement truss of those poles that were inspected. Contractor shall bear the cost for correcting all improper work. At least 3 poles will be selected for each quality control; these will be selected at random by the owner's representative. Owner shall be issued a copy of the quality control field report.
- Discrepancies and Corrective Action: Any work that is not constructed to specification or any billing discrepancies will be brought to the attention of the contractor. Corrective action, satisfactory to FPC or CP&L, must be taken by the contractor to remedy the situation before the next quality control check. The corrective action may include, but not be limited to re-working each pole back to the previous quality control checkpoint at no cost to FPC or CP&L.
- FPC and CP&L designated contact will have final approval on all aspects of the work and payment.

#### Invoicing and Payments

Normal payments will be issued as followed:

- Contractor shall furnish FPC and CP&L with weekly reports (specifics outlined in the specifications) reflecting all poles that were inspected, treated, and reinforced. Billing will be itemized and turned in weekly, with these reports.
- FPC or CP&L designated contact will review the invoices and submit the invoice for processing and payment.
- Any discrepancy must be corrected prior to submittal of the next invoice.



IN-SERVICE WOOD POLE INSPECTION  
AND REMEDIAL TREATMENT SPECIFICATIONS

For

Carolina Power & Light & Florida Power Corporation  
Date: 01/08/2001

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- 1.2 Contractor Requirements
- 1.3 Personnel Qualifications
- 1.4 Definitions for Inspection & Treatment

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- 7.2 Data Collection
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- 7.5 Poles Needing Maintenance Work Summary
- 7.6 Poles Rejected Summary
- 7.7 Year-to-Date Inspection & Treatment Summary
- 7.8 Computer Media

**Appendix A** Pole Inspection Tags

**Appendix B** OH Facilities Inspection

## 1.0 GENERAL

### 1.1 Scope

This specification is intended as a basis for the inspection and treatment of wood poles. All poles less than 20 years old should be visually inspected and reported. All creosote poles 20 years and older are to be inspected both above and below the groundline area. All CCA poles 20 years old and older are to be inspected but not excavated unless pole shows obvious damage or decay.

### 1.2 Contractor Requirements

The contractor is required to have a minimum of 5 years in the in-service pole inspection and treatment business. The contractor must have documented policies conforming to EPA, OSHA, and DOT regulations. These policies must include Safety Manual, Pesticide Training Manual and test, standards for safe storage of preservatives on vehicles, operating policies for contractor's personnel to handle preservatives and procedures for disposing of empty containers used for pole treatment and OSHA regulations involving personal protective equipment.

### 1.3 Personnel Qualifications

- 1.3.1 All pole inspection and treatment must be performed by professional in-service groundline pole inspection and treatment specialists. They must be trained and experienced (minimum 6 months) in the inspection and treatment of in-service wood poles. The owner reserves the right to ask for evidence of previous experience and training in the form of letters of reference and test results. Personnel are subject to approval by the owner before awarding the contract or at any time thereafter. Failure to maintain an adequately trained inspector will result in payment being withheld by the owner in the area being inspected.
- 1.3.2 Supervision of pole inspection and treating shall be performed using full-time supervisors with at least 2 years of field experience in in-service pole inspection and treatment.
- 1.3.3 Personnel not specifically qualified to inspect and treat in-service poles as outlined above shall not be transferred to work as pole inspectors from other contractual work.

### 1.4 Definitions for Inspection and Treatment

Pole inspection and treatment categories are defined as follows:

- 1.4.1 Reported Pole (Visual Inspection): A reported pole is a less than 20 years old about which the owner desires information or any pole that is judged to be unserviceable prior to excavation.
- 1.4.2 Sounding and Boring: Poles shall be sounded with a hammer from either groundline or above groundline as applicable, to as high as an inspector can reach, in a circumfluous manner, in order to locate exterior decay or interior pockets of decay.

Inspector shall bore pole at least once to detect interior decay. If it is present, pole shall be bored a sufficient number of times to determine location and extent of decay. Bored holes shall be plugged with tight-fitting CCA treated wood dowels.

When performing a sound and bore on a 20 year old or older CCA pole, a single bore is called for to determine if any wood zones are softened by decay. If no decay is evident, fill the bore hole with a CCA treated plug. Do not perform any excavation. If internal damage is evident, more boreholes may be necessary, but should be kept to a minimum. Never shave a CCA pole, it serves no purpose.

- 1.4.3 Externally Treated Pole: A groundline treated pole is any pole designated by the owner

which, upon inspection, is found to be a candidate for external preservative treatment, provided enough sound wood remains.

Treatment shall consist of ingredients listed under Section 5.2.

- 1.4.4 Rejected Poles: A rejected pole is any pole designated by the owner which, upon inspection, is found deteriorated below the required minimum as indicated on the circumference table supplied or approved by the owner.
- 1.4.5 Externally Treated Reject Pole: A rejected pole that, after inspection, meets criteria for pole restoration (reinforcing.) A pole found to be restorable will be groundline treated. The inspector will make a notation on the pole report form as to whether a pole can or cannot be restored. If the pole top or pole hardware has defects, this will be noted in the remarks column on the pole report form.
- 1.4.6 Internal Treatment: Contractor's E.P.A. registered insecticide and preservative (Section 5.4) solution is applied internally under 80 PSI minimum pressure to any chambers and internal decay voids that constitute a size of 1" or larger.
- 1.4.7 Fumigant Treatment: Application of EPA registered fumigant containing 32.7% Sodium Methylthiocarbamate (Woodfume).
- 1.4.8 Priority Pole: A pole that is in need of immediate replacement; usually has average shell of one inch or less.

## 2.0 GENERAL PRECAUTIONS AND REQUIREMENTS FOR PRESERVATIVE APPLICATIONS

### 2.1 General Restrictions and Requirements

All preservatives shall be handled and applied in a manner that will prevent damage to vegetation and property. Only preservatives registered by the Environmental Protection Agency and the appropriate State Department of Agriculture for the intended use will be considered for approval by the owner.

No preservatives shall be applied by the contractor where a pole is located in a vegetable garden or within ten (10) feet of a stream or standing water body or well.

Any container in which a preservative is stored shall be securely locked or bolted to vehicles on the right-of-way and kept locked when left unattended. Empty preservative containers shall be removed from the right-of-way and kept in a locked compartment until disposal. Disposal of preservatives and their containers shall be in accordance with the rules and regulations of all appropriate Federal and State agencies.

### 2.2 Pesticide Licensing and Reporting Requirements

The contractor shall be a certified commercial pesticide business for the preservative application set forth under this contract, and shall have each crew supervised by a full time Supervisor who is licensed and certified by the State. The contractor shall be responsible for the accurate recording and submitting of all pesticide usage forms required by the various pesticide regulatory agencies and for meeting all applicable Federal and State rules and regulations.

The contractor is required to have in his possession copies of the preservative labels of all the preservatives, insecticides and fumigants being used. The labels shall list the preservative composition, description, directions for use, precautionary statements, warnings, environmental hazards, practical treatments, storage and disposal instructions and any other relevant information about the preservatives used. Upon request, the labels must be shown to anyone desiring this information.

### 2.3 Spill Prevention

Preservative spills shall be immediately cleaned up in a manner consistent with label restrictions, Federal and

State regulations, and acceptable environmental procedures.

The contractor shall provide each crew with a spill kit containing sufficient materials for cleaning up and neutralizing potential spills of liquid preservatives. The spill kit shall consist of, but not be limited to the following materials: absorption material (such as sawdust or oil dry), baking soda or laundry detergent, ammonia (undiluted) and trash bags for disposal of waste.

#### 2.4 Proper Equipment

The contractor shall provide each crew with the following EPA required equipment: goggles, sleeves, non-permeable gloves and aprons, hard hats and a change of clothing.

The contractor shall provide a truck that has covers and locks adequate to satisfy federal and state DOT regulations in which to store and transport the preservatives.

#### 2.5 Pesticide Training

Each pole inspector or foreman shall be required to pass a pesticide training program which addresses biology of wood destroying insects and fungi, the proper and safe handling, storage, disposal and transport of pesticides, product labels and material safety data sheets, emergency procedures for pesticide spills, etc. The contractor's Pesticide Training Program is to be in addition to state requirements for applicator licensing.

- 2.5.1 Hazard Communication and Safety Program: The contractor shall provide to its employees a hazard communication program which addresses the purpose of using pesticides, material safety data sheets and product labels, protective safety equipment and clothing and product information. A safety manual and program is to be provided and utilized by the contractor and its employees.

### **3.0 INSPECTION**

#### 3.1 Preparation

When work is to be done in close proximity to a home or in the backyard of a home, the property owner should be notified as to what is being accomplished. Brush will be removed from around the pole to allow for proper excavation, inspection and/or treatment unless permission for removal is denied by property owner. Denial will be indicated in the remarks column on the pole report. If permission for excavation is denied, the pole will be sounded and bored and fumigant treated, providing the pole is serviceable. Contractor will not inspect or perform work on poles inaccessible by acts of God or by any causes beyond the control of contractor. Reason for the lack of inspection will be noted in the remarks column of the pole report.

#### 3.2 Above-Ground Inspection

A visual inspection of all poles shall be made from groundline to the top of the pole. Items listed by Owner requiring maintenance shall be noted on report sheet. If the pole is obviously not suited for continued service due to serious defects, it shall not be tested further but simply be reported and marked on the inspection form as a reported reject.

#### 3.3 Excavation

All non-CCA poles 20 years or older passing the above ground visual inspection shall be excavated around to a minimum depth of 18" below groundline. CCA poles shall be inspected according to section 1.4.2 of this document. The excavation will be approximately 10" from the pole at ground level and 4" from the pole at the 18" depth. For excavation in lawns, sod grass areas or gardens, care will be taken to keep surrounding area as clean as possible. The sod around pole shall be carefully cut and neatly stacked. Poles installed on slopes shall be excavated to a minimum depth of 18" on the down slope side and 18" on the high side. Tarpaulins or ground cloths shall be used at all times.

#### 3.4 Extended Visual Inspection (Optional upon request of owner)

A visual inspection of the following items shall be performed by the Contractor, and a report submitted with the results as specified in the document entitled Distribution Facilities Inspection Specifications. Any special conditions discovered during the inspection process will be noted and included in the weekly report.

An extended visual inspection shall be performed on all poles in the area, including those not treated or inspected, such as concrete, fiberglass, CCA poles, etc.

### 3.5 Sounding

Poles shall be sounded in a circumfluous manner from as high as the inspector can reach to the exposed groundline area in order to locate interior pockets of decay. Hammer marks should be visible to indicate that the area was sounded.

### 3.6 Boring

Inspector shall bore pole with a 3/8" bit. At least one test boring below groundline shall be taken one inch to the side of, and parallel to, the deepest check extending below groundline. The boring shall be taken at a 45 degree angle and proceed past the center of the pole in depth. A shell thickness indicator approved by the owner shall be used to detect the extent of the interior decay.

If heart rot or enclosed decay pockets are evident in a pole, a minimum of five (5) borings will be taken to determine the size and extent of decay. Bored holes shall be plugged with tight-fitting CCA treated wood dowels.

### 3.7 Chipping

Significant loose and decayed wood is to be removed from 18" below groundline to 6" above groundline. A quality-chipping tool will be used for this procedure to obtain a smooth, clean removal of wood. External decay pockets will be shaved or chipped to remove decay from pole. It is essential that exterior decay be removed from the hole and surrounding ground and disposed of properly. Care should be taken not to remove good wood, as this will reduce the strength of the pole. The pole will be scraped using a check scraper to remove dirt from treatment zone. **Do not chip a CCA pole.**

**CAUTION:** Care must be taken not to break the ground wire or to disconnect it from the ground rod. If broken, the wire must be repaired using a compression connector. (WEAR RUBBER GLOVES WHEN PERFORMING THIS WORK.) Grounds must be carefully pulled away from the pole so as not to interfere with the work, and they must be restored to their original location when work is completed.

## 4.0 EVALUATION

### 4.1 Determine Minimum Circumference

Deductions shall be made from the original ground line circumference of a pole to account for hollow heart, internal decay pockets, and removal of external decay. The measured effective critical circumference shall be at the point of greatest decay removal in the vicinity of the ground line taking into account the above applicable deductions. A pole circumference calculator approved by owner shall be used to determine the measured effective critical circumference.

Measure minimum circumference at or below groundline wherever the least sound wood is present. Make adjustments in circumference to account for external decay pockets and internal decay in accordance with loading tables approved by Owner. Check effective circumference against loading tables supplied or approved by Owner. To remain in service as is, the pole shall meet minimum NESC strength requirements (which is 2/3's of the strength required at installation). Poles below minimum circumference (which is 82% for guyed poles, 87% for unguyed poles) shall be rejected, and so marked in the field and reported. Poles with a minimum shell equal to or greater than 2 inches will be treated; poles with a shell thickness less than the above-specified minimum will be rejected. Poles with a minimum shell of 1 inch(es) or 50% of original

circumference or less will be designated a "Priority Pole" or another appropriate name.

"Priority Poles" shall be reported to the owner via the prescribed method within 24 hours.

#### 4.2 Evaluation for Reinforcement

Poles rejected because of groundline decay shall be visually checked to determine if they can be reinforced. Poles with serious top defects or without sufficient wood at 26 inches above ground (truss band location) will be immediately rejected and no further work performed on the pole. If the pole is not a candidate for reinforcing and/or if the appearance of any attachment seems improper, this information must be supplied to the company's designated representative and no work is to be done until such conditions have been corrected.

After initial inspection has revealed that the pole is below required strength, the following shall be performed:

- 4.2.1. Sound the pole thoroughly above groundline again. Concentrate at the zone 15" to 4 ½ feet above groundline.
- 4.2.2. For tangent poles, drill at 4 ½ feet above G/L on the face of the pole in line with the conductors. For suspension angles and terminal/angle dead end poles, drill at 4 ½ feet above G/L on the face of the pole perpendicular to the bisect of the angle of the conductors (direction of fall). If this boring indicates less than a 4" shell thickness, a second boring is made opposite (180 degrees from) the first boring whenever possible. Other borings should be taken as necessary. If the average shell thickness is 4" or more, go to step 4.2.3; if not, the pole should be checked at 5 ½ feet for an average shell thickness of 4" or more. If the average shell thickness at 5 ½ feet is found to be 4", go to 4.2.3; if not, then the pole must be rejected.
- 4.2.3. Drill at 15" above G/L against the line of lead. If this boring indicates less than a 2" shell thickness, a second boring is made opposite (180° from) the first boring whenever possible. Other borings should be taken as necessary. If the average shell thickness at 15" is less than 2", go to 4.2.4. If the average shell is 2" or greater, reinforce the pole.
- 4.2.4. Poles with less 2" average shell thickness at 15" can be reinforced if there is a 2" average shell thickness at 26" and the criteria in step 4.2.2 is met. For tangent poles, drill at 26" above G/L on the face of the pole in line with the conductors. For suspension angles and terminal/angle dead end poles, drill at 26" above G/L on the face of the pole perpendicular to the bisect of the angle of the conductors (direction of fall). If this boring indicates less than a 2" average shell thickness, a second boring is made opposite (180 degrees from) the first boring whenever possible. Other borings should be taken as necessary. If the average shell thickness is 2" or greater, reinforce the pole.

## **5.0 TREATMENT**

### **5.1 General**

All poles 20 years and older and suitable shall be treated in accordance with "External Groundline Treatment". If internal decay is indicated, an appropriate solution shall be selected and applied. All poles less than 20 years old shall be visually inspected and reported only. CCA poles older than 20 years shall be sounded and a single bore hole performed. If internal decay is present, they should be fumigated according to Paragraph 5.3.

#### 5.1.1 Retreatment of Previously Treated Poles

All poles that have been treated in a previous cycle shall be checked and retreated with similar type preservative as prior treatment(s).

#### 5.1.2 Retreatment of Reinforced Poles

All reinforced poles that have been treated in a previous cycle shall be checked and retreated. The pole shall be groundline treated, wood fume treated in the lower band area, and hollow-heart treated in the upper band area.

## 5.2 External Groundline Treatment

All poles which are excavated and pass inspection (serviceable) are to be groundline treated with a preservative paste approved by owner which shall be applied to the pole (a minimum of 1/16" thick) from 18" below groundline to 2" above groundline. Preservative paste shall have the following minimum percentages of active ingredients:

44.42 %	Sodium fluoride	44.42 %	Sodium fluoride
45.62 %	Creosote oil	3.10 %	Potassium bichromate
3.20%	Sodium Dichromate	45.62 %	Creosote
6.76 %	Inert ingredients	6.86 %	Inerts

Preservative treatment should penetrate a minimum of two (2) inches into the pole. Long-term retention studies should be made available to assure results.

Liberal treatment and fill all exposed pockets and checks using brush or trowel. Where obstructions occur such as fences, curbs, and walls, the preservative shall be applied in excessive amounts next to obstruction to insure complete coverage. Such conditions shall be recorded.

### 5.2.1 Wrapping of External Treatment

A moisture barrier equivalent to "OsmoShield" is to be applied over the wood preservative. The moisture barrier shall cover preservative at 18" depth and extend 2" above the top of treatment zone, for a total of 22" wide. It shall be of sufficient length to go around the pole with an overlap of approximately 4" and shall be stapled to the pole at the top and side seams of the barrier. Pasture wrap shall also be used in areas of livestock; it will be stapled to top of the moisture barrier to act as an additional protective barrier. The mil thickness of the moisture barrier shall not be less than 4 mils thick.

## 5.3 Fumigant Treatment

### 5.3.1 Application

Woodfume shall be applied when prescribed below:

All poles that meet the following criteria shall be treated internally as follows: all poles which cannot be excavated (i.e., poles in concrete, poles with risers, poles with phone drops, etc.); all poles which cannot be 75% excavated due to obstructions (i.e., curbs, pole keys, large roots, fences etc.), and all poles where incipient decay is present.

WoodFume (32.7% Sodium Methyldithiocarbamate, 67.3% Inert Ingredients)

### 5.3.2 Application rate shall be as follows:

<u>Pole Circumference</u>	<u>Application Rate</u>	<u># Holes Drilled</u>
Less than 32"	1 pint	4
32"	1 pint	4
45" or greater	1.5 pints	6

### 5.3.3 Bore holes, 7/8" in diameter, 12" deep for distribution.

- 5.3.4 All poles shall be bored above ground toward the center of the pole at an angle of no less than 45 degrees. Care shall be taken to avoid going through the pole or seasoning checks.
- 5.3.5 Borings shall start at the appropriate location and shall be evenly spaced up the pole in a spiral pattern. No less than 6 vertical inches shall separate adjacent holes.
- 5.3.6 All holes shall be plugged using CCA treated wood dowels 3" in length and 15/16" in diameter.

#### 5.4 Internal Treatment

Poles containing decay pockets of 1" or larger shall be treated. Internal treatments will be Hollow Heart internal treatment solution or a Copper Naphthenate Solution.

10.90 %	Sodium Fluoride	19.25 %	Copper Naphthenate -
4.80 %	Sodium Dichromate		(2% Copper as metal)
5.36 %	Tri-Sodium Arsenate (or)	80.75 %	
78.94 %	Inert Ingredients	100.00 %	
100.00			
%			

Internal treatment shall be applied to all holes bored with a minimum of 80 PSI pressure. Sufficient 3/8" diameter holes shall be bored to the center of the pole starting from groundline in a spiral fashion. Rejected poles to be reinforced must have at least nine (9) holes bored to the center of the pole. The preservative is pumped into the bottom hole until preservative runs out the next higher hole. This hole is then plugged and additional preservative is pumped into the cavity until the cavity is filled or a maximum of one gallon is used. For internal treatment, a 3/8" by 18" bit will be used to drill holes; all holes will be plugged with a 7/16" treated wood dowel. If ants are encountered in pole, sound the pole to locate top of ant chamber and drill enough holes to thoroughly treat wood and flood ant galleries.

Appropriate safety equipment must be used when applying internal treatment. Avoid splashing onto the surrounding area.

### 6.0 RESTORATION OF WORK SITE

#### 6.1 Backfilling

After excavation and/or treatment, all poles will be solidly back-filled. The first half of excavation will be back-filled and tamped completely around the pole; the second half back-filled and tamped completely around the pole. The excess earth should be banked up to a maximum of 3" above normal ground level to allow for settlement. In grass areas the sod shall be carefully placed around the pole. Rocks or stones should not be laid against the pole except where they serve to key the pole or where no other fill is available. Extreme care should be taken not to tear the moisture barrier while back filling.

#### 6.2 Clean-up

No debris, loose dirt, etc., is to be left in the pole area. Private property turf, including that between curb and sidewalk, bushes, and plants and shrubbery are to be replaced with care. If any preservative is spilled on the ground, it shall be cleaned up immediately. All containers shall be disposed of according to approved environmental practices.

### 7.0 POLE MARKING AND RECORDS

#### 7.1 Tagging (Example Attached -see appendix A)

Poles rejected but capable of being restored are to be properly marked with an appropriate reject tag.



The contractor's inspector will make a notation on the pole inspection and treating report as to whether the pole can or cannot be restored. If the pole has top defects, this will be noted in the remarks column.

All rejected poles are to have one square reject tag placed on them at approximately 7 feet from groundline. In addition to the reject tag, red flagging, or spray paint, to be furnished by the contractor, may be used to help in the identification of priority or rejected poles.

Priority poles are to have two square reject tags at approximately 7' from groundline.

## 7.2 Data Collection

All information collected in the field shall be entered into a handheld computer while in the field. Information entered shall have an accuracy of at least 98%.

## 7.3 Pole Inspection Detail Reports

This report shall provide individual pole information for all poles inspected during the week by an individual Inspector. It shall be provided no more than one week after the work is performed. All information listed below shall be contained in this report.

**Heading** – Each report sheet shall have the information listed below in the heading:

- Utility Name
- Contractor Name
- Inspector Name
- Supervisor Name
- Division (where relevant)
- Page Number
- Page Number
- District (where relevant)
- Line/Map Number

### Report Content:

- Pole Number
- Manufacturer
- Type of Treatment
- Year Set
- Class
- Original G/L Circumference
- Height
- Species
- Effective G/L Circumference
- Pole not on map
- Facilities not in field

Column headings should be available to mark the appropriate item or items performed on each pole. Include the categories listed below:

- Treat
- Sound and Bore
- Company that performed
- Reject
- Visual
- Initial Treatment
- Treated Reject
- Partial Treat
- Last Year Treated
- Fumigant
- Internal Treat
- Repair Groundwire
- Decay This Cycle
- Install Guy Marker
- Stencil

Remarks and Note section should spell out words instead of abbreviating them. Remarks section should be capable of describing all decay conditions as well as maintenance items, which should be noted.

## 7.4 Weekly Inspection and Treatment Summary

This report shall summarize an individual Inspector's work for a specific week. It shall provide the total number, percentage and cost of all repaired items, installations, inspection and treatment categories. The total weekly expenditure, as well as the average cost per pole shall be calculated on this report. It shall be attached to each POLE INSPECTION DETAIL REPORT each week.

## 7.5 Poles Needing Maintenance Work Summary

This report shall summarize poles needing maintenance work for an individual week. It shall be attached to the appropriate POLE INSPECTION DETAIL REPORT each week. The report shall list the following information:

- Map/Line
- Pole Number
- Maintenance Required

- Class
- Height
- Year Set

#### 7.6 Poles Rejected Summary

This report shall summarize all rejects found for an individual week. It shall be attached to the appropriate POLE INSPECTION DETAIL REPORT each week. The report shall list the following information:

- Line/Map
- Height
- Location
- Type of Treatment
- Inspection Date
- Manufacturer
- Restorable summary
- Pole Number
- Class
- Year Set
- If Restorable
- Original G/L Circumference
- Effective G/L Circumference
- Non-restorable summary

#### 7.7 Year to Date Inspection and Treatment Summary

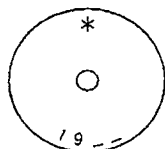
This report shall provide Region totals as well as company wide totals, percentages and cost of all repaired items, installations, inspection and treatment categories. The total contract expenditure as well as the average cost per pole shall be calculated on this report. This report shall be provided on a weekly basis.

#### 7.8 Computer Media

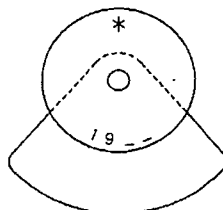
All data collected, if required by the contract and specifications, will be supplied to the Owner. Format to be an Access Database or an ASCII file. Details to be worked out with the contractor prior to any being performed.

## APPENDIX A

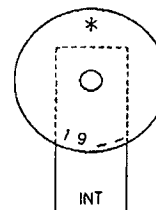
1. GROUND LINE TREATED.



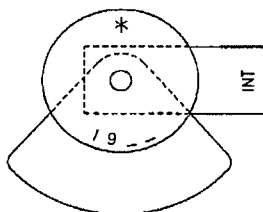
2. GROUND LINE TREATED AND FUMIGANT TREATED.



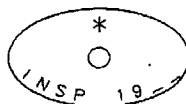
3. GROUND LINE TREATED AND INTERNAL TREATED.



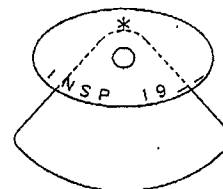
4. GROUND LINE TREATED. WOODFUMED AND INTERNAL TREATED OR WOODFUMED AND INTERNAL TREATED ONLY.



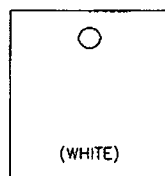
5. VISUAL BUT NOT GROUND LINE TREATED (VISUAL OR SOUND AND BORE).



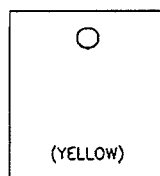
6. FUMIGANT TREATED ONLY.



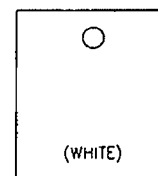
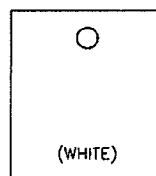
7. REJECT-POLE DOES NOT MEET CP&L STRENGTH REQUIREMENTS AND SHOULD BE REPLACED.



8. REJECT-POLE DOES NOT MEET CP&L STRENGTH REQUIREMENTS, BUT CAN BE GROUND LINE TREATED AND REINFORCED.



9. REJECT-POLE DOES NOT MEET CP&L STRENGTH REQUIREMENTS, SHALL NOT BE CLIMBED, AND SHOULD BE REPLACED AS SOON AS POSSIBLE.



NOTES:

1. ALL OF THE INSPECTION TAGS SHOWN ABOVE ARE ALUMINUM.
2. INSPECTION TAGS 7, 8 AND 9 SHOWN ABOVE ARE PAINTED THE COLOR INDICATED ON THE TAG.
3. INSPECTION TAGS 7, 8 AND 9 (REJECT TAGS) ARE ATTACHED AND CENTERED ON EXISTING POLES 2" BELOW THE DIS NUMBER. IF FOUND, REPORT TO LOCAL OPERATIONS CENTER.

## POLE INSPECTION TAGS

## **APPENDIX B**

### ***CP&L and FPC***

## **GUIDELINES FOR THE DISTRIBUTION FACILITIES INSPECTION PLAN**

*January 01, 2001*

### **SCOPE**

These guidelines cover the requirements for extended overhead inspection, evaluation, and identification of distribution facilities for Carolina Power & Light Company and Florida Power Corporation.

### **PURPOSE**

The purpose of the Distribution Facilities Inspection Plan is to identify and correct distribution system defects caused by aging, storms, improper installation, poor material quality, contamination, and damage caused by the general public. This is accomplished by inspecting all overhead distribution system lines and facilities including poles, conductors, cutouts and arresters, anchors and guys, insulators, transformers, regulators, reclosers, air-break switches, and capacitor banks. The inspections will be performed by Contractors (already on-site) performing pole inspections and pole restorations. These overhead equipment inspections are also known as extended visual overhead inspections. This work is optional and not to be performed unless specifically approved by the company.

### **INSPECTION PROCEDURES**

Inspect lines, equipment, and facilities according to these guidelines.

#### **POLES**

- Visually inspect for leaning, cracks, decayed, split top, bird holes, lightning damage, missing or damaged pole numbers and other damage.
- Inspect/record pole preservative type (ie, creosote, penta, or CCA) as well as the size and class.
- Remove vines and unauthorized materials (attachments) which can be reached from the ground.
- Check to be sure overhead ground wires above the neutral are mounted on standoff insulators.
- Check braces, wood cross-arms, and metal brackets for any: cracked, rotted, bowed, bent, burned, or other damage.

#### **CONDUCTORS**

- Visually check conductors in both directions for proper sag, roll, and ground clearance. Check clearances phase-to-phase and from foreign conductors, structures, and trees.
- Check conductor for broken, burned, or damaged strands.
- Check for floating conductors.
- Check for visual indications of overheated connections.

**CUTOUTS & ARRESTERS**

- Check for broken porcelain and other damage.
- Check for blown arrester or unattached lead on arrester.
- Check for proper installation and clearance.
- Check for gapped arresters.
- Check for pole labeling of fuse size and type (CP&L only). If pole is not labeled, mark for follow up.
- Check for blown or damaged cutout.

**ANCHORS & GUYS**

- Inspect anchor eye and rod for creepage, rust and corrosion.
- Check guy for proper tension, rust and damage.
- Remove vines which can be reached from the ground.
- Check for proper clearance and grounding.
- Check guy guard for proper installation. Request addition of guy guard when subjected to animals or the general public.
- Check for guy insulators installed per specifications.

**INSULATORS**

- Visually check for chips, cracks, contamination, or other damage.
- Visually check for broken, loose, or improperly installed tie wires.

**TRANSFORMERS/REGULATORS/RECLOSERS**

- Check for broken bushings, arresters, and other damage.
- Check for leaking or any apparent overheating conditions.
- Check for proper clearance and grounding.

**AIR BREAK SWITCHES**

- Check for broken insulators and other damage.
- Check for proper grounding of switch frame and handle.
- Check locking mechanism for security purposes.
- Check to ensure that lightning arresters are installed on each side of normally open air break switches.

**CAPACITOR BANKS**

- Visually check bank for swollen or bulging units, oil Leaks, broken porcelain, blown primary fuses or other damage.

**IDLE FACILITIES**

- Indicate that facilities are no longer serving load.

## **WOOD POLE REINFORCEMENT**

*For*

**Carolina Power & Light and Florida Power Corporation  
January 8, 2001**

<b>1.0</b>	<b>SCOPE</b>
<b>2.0</b>	<b>GENERAL</b>
<b>3.0</b>	<b>PERSONNEL QUALIFICATIONS OF CONTRACTOR</b>
<b>4.0</b>	<b>INITIAL INSPECTIONS PROCEDURE</b>
<b>5.0</b>	<b>DETERMINING REINFORCING CANDIDATES</b>
<b>6.0</b>	<b>PRESERVATIVE TREATMENT OF RESTORATION CANDIDATE</b>
<b>7.0</b>	<b>REINFORCING MATERIALS</b>
<b>8.0</b>	<b>ACCESSIBILITY</b>
<b>9.0</b>	<b>DETERMINING SIZE OF C-TRUSS, REINFORCING TRUSS SELECTION CHART</b>
<b>10.0</b>	<b>TEMPORARY REINFORCING OF POLES</b>
<b>11.0</b>	<b>INSTALLATION OF STEEL TRUSS</b>
<b>FIGURE 1</b>	<b>TRUSS ORIENTATION ON A POLE</b>
<b>FIGURE 2</b>	<b>C-TRUSS AND BANDING INSTALLATION</b>
<b>12.0</b>	<b>TAGGING</b>
<b>13.0</b>	<b>PAINTING</b>
<b>14.0</b>	<b>PROTECTIVE CAP</b>
<b>15.0</b>	<b>EXCEPTIONS</b>
<b>16.0</b>	<b>STORAGE ON COMPANY PROPERTY</b>
<b>17.0</b>	<b>CONFORMANCE TO EPA, OSHA, AND DOT STANDARDS</b>
<b>18.0</b>	<b>TEST RESULTS</b>
<b>APPENDIX A</b>	<b>POLE INSPECTION TAGS</b>

## **1.0 SCOPE**

- 1.1 This specification explains the evaluation, preservative treatment, and reinforcing of poles and how Carolina Power & Light and Florida Power Corporation (hereinafter called the Company) expects it to be accomplished.
- 1.2 The Company shall inform the Contractor of any modifications or changes to specifications to meet any special conditions.
- 1.3 The Contractor is responsible for any damages which he causes while working for the Company. The Contractor is not responsible for failure to reinforce poles made inaccessible by conditions beyond his control or poles marked to be reinforced and, upon further inspection, it is determined not to be reinforceable.

## **2.0 GENERAL**

- 2.1 Pole reinforcing is a method by which a standing pole that has been weakened due to decay, insects, or mechanical damage can be braced with a steel C-Truss. This enables the pole to remain in its present location. Weakened poles that have been classified as reinforceable must first be treated to help arrest decay and/or insects. (Contractor must comply with all specifications listed in the In-service Wood Pole Inspection and Remedial Treatment Specifications.)

## **2.2 PERSONNEL QUALIFICATIONS OF CONTRACTOR**

- 3.1 All pole restoration must be performed by professional in-service restoration specialists. The Truss Foreman must be trained and experienced (minimum one year) in the wood pole restoration with steel trusses of in-service wood poles. The owner reserves the right to ask for evidence of previous experience and training in the form of letters of reference and test results. Personnel are subject to approval by the owner before awarding the contract or at any time thereafter. Failure to maintain an adequately trained inspector will result in payment being withheld by the owner in the area being restored.
- 3.2 Supervision of pole inspection and treating shall be performed using full-time supervisors with at least 2 years of field experience in in-service pole inspection and treatment.
- 3.3 Personnel not specifically qualified to restore poles as outlined above shall not be transferred to work as pole restores from other contractual work.

## **4.0 INITIAL INSPECTION PROCEDURE**

A visual inspection shall be made by the Contractor of all poles to be reinforced, before any work is done. Poles with serious top defects or without sufficient wood at 26 inches above ground (truss band location) will be immediately rejected and no further work



performed on the pole. If the pole is not a candidate for reinforcing and/or if the appearance of any attachment seems improper, this information must be supplied to the company's designated representative and no work is to be done until such conditions have been corrected.

## **5.0 DETERMINING REINFORCING CANDIDATES**

(Note: The following procedure has worked effectively for typical distribution poles. Transmission and very large poles should be evaluated to determine if any modifications to average shell thickness are necessary.)

After initial inspection has revealed the pole to be a reject, the following shall be performed:

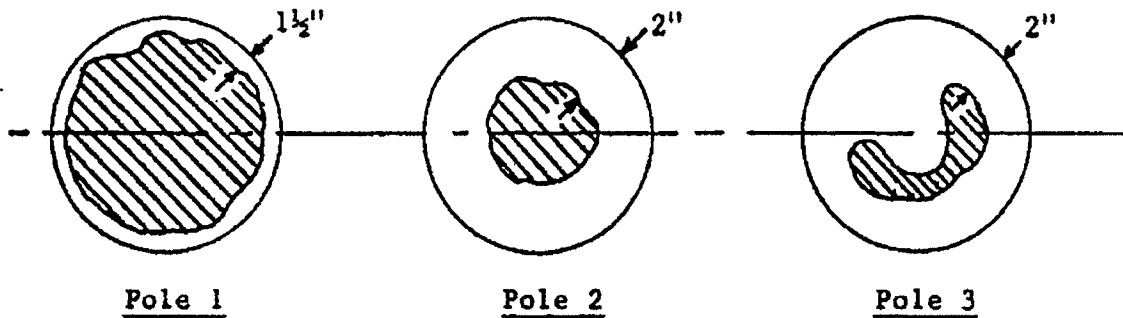
- 5.0.1 Sound the pole thoroughly above groundline again. Concentrate at the zone 15" to 5 feet above groundline.
- 5.0.2 Drill at 4 ½ feet above G/L against the line of lead. If this boring indicates less than a 4" shell thickness, a second boring is made opposite (180° from) the first boring whenever possible. Other borings should be taken as necessary. If the average shell thickness is 4" or more, the pole can be reinforced. Go to step 7.0.3. If the average shell is less than 4", the pole should be checked at 5 ½ feet for 4" of average shell. If pole fails to meet these requirements, pole will be replaced.
- 5.0.3 Drill at 15" above G/L against the line of lead. If this boring indicates less than a 2" shell thickness, a second boring is made opposite (180° from) the first boring whenever possible. Other borings should be taken as necessary. If the average shell thickness at 15" is less than 2" go to step 7.0.4. If the average shell is 2" or greater, reinforce the pole with banding as shown in figure 2.
- 5.0.4 Poles with less than 2" average shell at 15" can be reinforced if there is a 2" average shell at 26" and the criteria in step 7.0.2 are met. When the shell requirements are raised from 15" to 26" above groundline, a longer truss shall be installed (refer to figure 2). For suspension angles and terminal/angle dead end poles, drill at 26" above G/L on the face of the pole perpendicular to the bisect of the angle of the conductors (direction of fall). If this boring indicates less than a 2" average shell thickness, a second boring is made opposite (180 degrees from) the first boring whenever possible. Other borings should be taken as necessary. If the average shell thickness is 2" or greater, reinforce the pole.

## **5.1 Decay Specifications - General Guideline**

- 5.1.1 A pole can be reinforced if it has a 2" or more average shell at 15" (or 26" when applicable) above groundline and 4" of average shell at 4 ½ feet (or 5 ½ feet when applicable). **It must also be determined that the internal decay can be effectively treated.**

## **5.2 Decay Situations**

5.2.1 Heart Rot and Large Enclosed Pockets Poles with heart rot and large enclosed pockets can be reinforced if there is a 2" or greater average shell at 15" (or 26" when applicable) above groundline and 4" of average shell at 4 1/2 feet (or 5 1/2 feet when applicable).



Pole 1: Heart rot with less than 2" average shell, cannot be reinforced

Pole 2: Heart rot with 2" or more average shell, can be reinforced

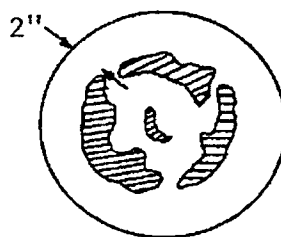
Pole 3: Large enclosed pocket with 2" or more average shell can be reinforced.

## 5.2.2 Internal Sapwood Decay

Poles with internal sapwood decay should be recommended for reinforcing only when internal treatment can penetrate and properly saturate the decayed areas.

### Guidelines:

1. A pole dispersed with internal sapwood decay can be reinforced if it has a 2" or greater average shell at 15" (or 26" when applicable) above groundline and 4" of average shell at 4 1/2 feet (or 5 1/2 feet when applicable).



## **6.0 PRESERVATIVE TREATMENT OF RESTORATION CANDIDATE**

- 6.1 Groundline Treatment - recommended if not accomplished during the inspection process. Pole determined to be reinforceable shall be fully treated with all groundline treatments determined necessary by inspection. Refer to the In-Service Pole Inspection and Remedial Treatment Specifications for details on Groundline treatment.
- 6.2 Internal Treatment - All rejected poles to be reinforced must be internally treated. Refer to the In-Service Pole Inspection and Remedial Treatment Specifications for details on Internal treatment.

## **7.0 REINFORCING MATERIALS**

### **7.1 Steel Trusses**

- 7.1.1 Minimum yield strength is 60,000 PSI for the 6, 7, 8 and 9 and 80,000 PSI for the 980, 1080, 1180, 1280, 1380, 1480, and 1580.
- 7.1.2 Galvanized per ASTM Spec A-123.
- 7.1.3 Date of manufacture and size of truss must be permanently stamped into exterior surface approximately 12" from the top of the truss.
- 7.1.4 Truss designations include 6, 7, 8, 9, 980, 1080, 1180, 1280, 1380, 1480, and 1580.
- 7.1.5 Shall be heavy-duty galvanized "C" truss, flat steel blanks formed with five bends.
- 7.1.6 Maximum weight per truss not to exceed 300 lb.

### **7.2 Banding**

- 7.2.1 Banding straps to be 2" x .055" minimum.
- 7.2.2 Minimum load strength of 10,000 lb. for each single wrap
- 7.2.3 Hot dip galvanized coating must be 2 oz. per square foot.
- 7.2.4 Minimum tensile strength 82,000 PSI.
- 7.2.5 Two seals used for each band, each seal to be crimped (not notched) 2 times for a joint efficiency of 95%. Seals are hot dip galvanized at 2 oz. per square foot.

## **8.0 ACCESSIBILITY**

The pressurized treating and reinforcing equipment must be capable of operating a minimum of 250 ft. from the reinforcing truck.

## 9.0 DETERMINING SIZE OF C-TRUSS

- 9.1 The contractor shall provide a truss selection chart detailing the appropriate truss(s) to be installed on each pole species, length and class. *The pole's remaining wood strength shall be of sufficient size to provide adequate strength required. Steel trusses must be of sufficient size to provide adequate strength to restore the pole to "at replacement" value as specified in the National Electric Safety Code (NESC).*
- 9.2 Trusses must be supplied according to the ultimate theoretical strength based on the continuous cross section of the truss. The minimum yield strength of the steel must be used in this calculation.
- 9.3 Steel trusses must be of sufficient size to provide adequate strength for grade B construction as defined by National Electrical Safety Code (NESC) requirements.

### Reinforcing Truss Selection Chart

(Assuming zero wood strength grade B construction)

POLE HEIGHT	POLE CLASS			
	2	3	4	5
	TRUSS SIZE			
35 ft.	980X10	9X10	9X10	8X10
40 ft.	1080X11	980X10	9X10	9X10
45 ft.	1080X11	9X10 OR 980X10	9X10 OR 9X11	9X10 OR 9X11
50 ft.	1180X11	1080X11	980X10	9X10 OR 9X11
55 ft.	1180X11	1080X11	980X10	
60 ft.	1280X11	1180X11	1080X11	
65 ft.	1280X11	1180X11	1080X11	

**NOTE:** "HD" or "80" SUFFIX FOR TRUSS SIZE INDICATES TRUSS IS HEAVY DUTY. HEAVY DUTY TRUSSES ARE REINFORCED WITH A STIFFENER PLATE.

FOR POLES HIGHER THEN 65', CONTACT DISTRIBUTION STANDARDS FOR REQUIRED TRUSS SIZES AND ARRANGMENTS.

1. THE FOLLOWING TYPES OF POLES ARE NOT ECONOMICAL TO REINFORCE:
  - SERVICE POLES
  - 35' SINGLE-PHASE TANGENT POLES WITH NO PRIMARY EQUIPMENT (E.G., TRANSFORMERS, RECLOSERS).
2. DO NOT REINFORCE RAILROAD AND LIMITED ACCESS HIGHWAY CROSSING POLES DUE TO THE POSSIBILITY OF REDUCED STRENGTH AT THE POLE TOP.

- 9.4 Each size truss is limited to a minimum pole circumference for proper reinforcement. A truss cannot be used below its size limitation in accordance with the following:

Truss Size	6	7	8	9	10	11	12	13	14	15	16
Min Pole Circum. at G/L	21"	23-1/2"	27-1/2"	31"	35"	37"	40"	43"	45"	48"	51"

#### **10.0 TEMPORARY REINFORCING OF POLES**

At the discretion of the Company representative, rejected poles may be temporarily reinforced prior to replacement. It is not necessary that a temporarily reinforced pole be externally treated, but it should be internally treated with Hollow Heart solution or Cop-R-Nap®.

Trusses specified in Table should also be used for temporary reinforcing of poles.

#### **11.0 INSTALLATION OF STEEL TRUSS**

- 11.1 The trusses are to be positioned on the pole as shown in Figure 1.

11.1.1 Care should be taken when positioning trusses to insure that installation of the trusses will not damage any part of the grounding system or other underground facilities.

- 11.2 Trusses are driven to a depth which develops adequate anchoring below the decay zone. During installation the truss must be held tightly against the pole to insure a good working unit. On poles where the lower bands can be located 15" above groundline, the truss will extend 5 feet above groundline unless high decay requires the truss to reach at least 6 feet above groundline. If the lower banding is located at 26", the truss must also have adequate length to extend at least 6 feet above ground.

- 11.3 A minimum of 4 bands are used to secure the truss to the pole above ground (see figure 4).

11.3.1 The C-Truss bands (as described in section 9.2) for a pole with a 6, 7, or 8 or 9 inch truss are wrapped once around the pole and pulled tight with a pneumatic tensioner rated at 2,000 lb. force, 100 PSI air pressure. The 980, 1080 and 1180 single trusses require 6 single bands or 4 double bands described in 12.3.2. Figure 2 shows a complete listing of banding requirements along with truss heights and depths.

11.3.2 Double C-Truss bands are first nailed to the pole. Each band must be double wrapped around the pole through the seal and then pulled tight with a hand tensioner or pneumatic tensioner.

11.3.3 Each C-Truss band will be fastened with two seals. Larger seals are

#### ATTACHMENT C

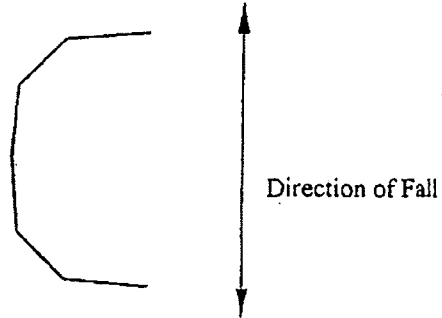
used on double wrapped bands. Each seal is crimped twice with a pneumatic operating on 90 PSI air supply giving 95% average joint efficiency. The seals must remain flat against the pole, not becoming "C-shaped".

- 11.3.4 Where pole requires two 8" or 9" trusses, each band must be doubled through the seal.

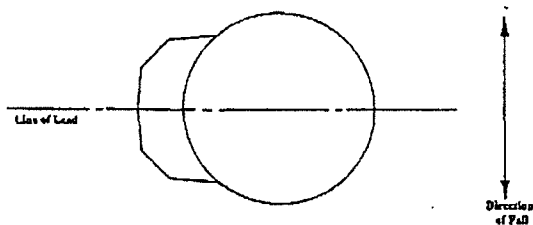
TRUSS ORIENTATION ON A POLE

Figure 1

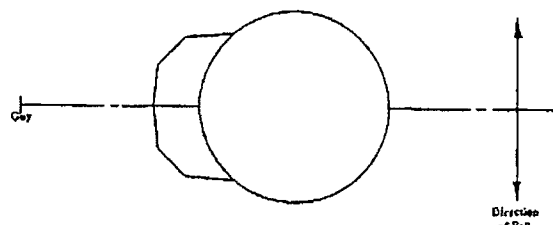
IN GENERAL: The direction of fall should be supported by the sideways bending strength of the Truss.



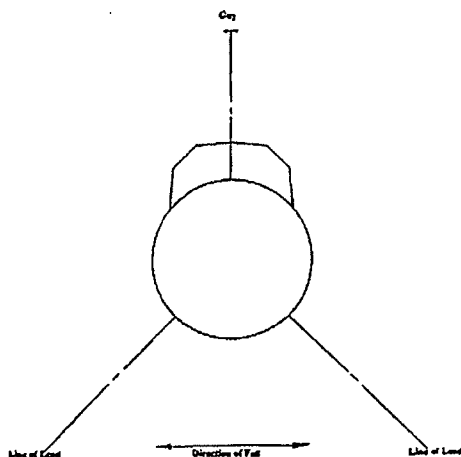
TANGENT POLE



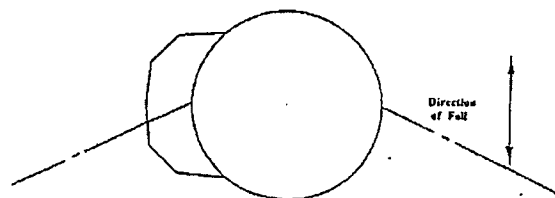
DEAD-END POLE



CORNER POLE



ANGLE POLE



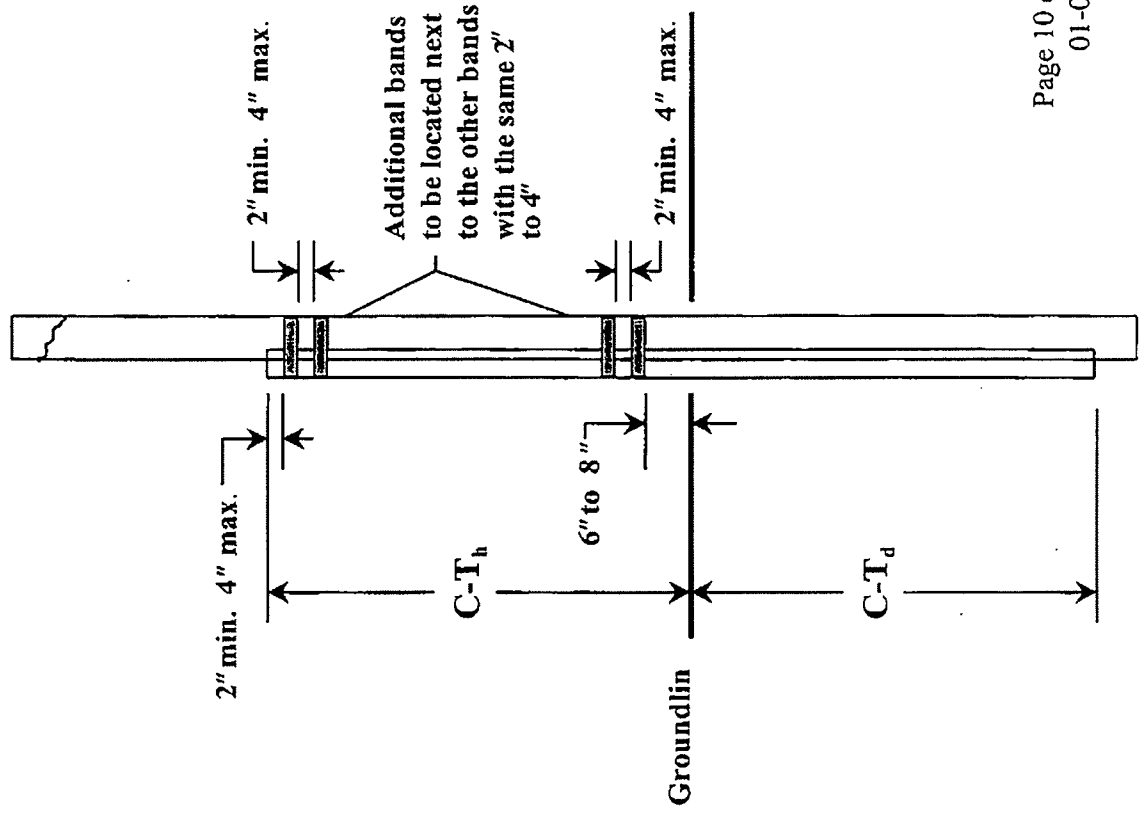
Note:

- 1) The second truss of a double trussed pole is placed on the opposite side of the first truss.
- 2) If possible, trusses on roadside poles should be placed on the side of the pole away from traffic.
- 3) For unguyed poles with wires traveling in perpendicular directions (Junction pole), the truss should be placed in the line of lead with the heaviest wire load or the primary (top) wires.

C-Truss and Banding Installation

Figure 2

C-Truss Size	C-Truss Height C-T <sub>h</sub> (ft)	C-Truss Depth C-T <sub>d</sub> (ft)	Bands Required
6 x 10	4.5	5.5	4 Singles
7 x 10	4.5	5.5	4 Singles
8 x 10	4.5	5.5	4 Singles
9 x 10	4.5	5.5	4 Singles
980 x 10	4.5	5.5	6 Sgl or 4 Dbl
1080 x 11	5.0	6.0	6 Sgl or 4 Dbl
1180 x 11	5.0	6.0	6 Sgl or 4 Dbl
1280 x 11	5.0	6.0	4 Doubles
1380 x 11	5.0	6.0	4 Doubles
1480 x 11	5.0	6.0	6 Doubles
1580 x 12	5.5	6.5	6 Doubles
1680 x 12	5.5	6.5	6 Doubles
Double C-Truss			
2-9 x 10	4.5	5.5	4 Doubles
2-980 x 10	4.5	5.5	6 Doubles
2-1080 x 11	5.0	6.0	6 Doubles
2-1180 x 11	5.0	6.0	6 Doubles
2-1280 x 11	5.0	6.0	8 Doubles
2-1380 x 11	5.0	6.0	8 Doubles
2-1480 x 11	5.0	6.0	10 Doubles
2-1580 x 12	5.5	6.5	10 Doubles
2-1680 x 12	5.5	6.5	10 Doubles



Note - If a longer C-Truss is used than is shown in the Table above, drive the C-Truss to;

- 1) the required Depth listed above or,
- 2) the midpoint of the C-Truss or,
- 3) the Height listed above.



**12.0 TAGGING**

All poles shall be tagged with a company-approved tag indicating contractor's name and year reinforced (see appendix A).

**13.0 PAINTING**

All trusses, caps and bands shall be painted. The paint should be a brown, protective, galvanized, rust-resistant, long lasting paint (except on gray poles).

**14.0 PROTECTIVE CAP**

All trusses shall have a protective cap installed on them.

**15.0 EXCEPTIONS**

Exceptions to this specification will be considered but are subject to written approval by the Company.

**16.0 STORAGE ON COMPANY PROPERTY**

The Company will allow storage of the contractor's equipment and material on the Company's property.

**17.0 CONFORMANCE TO EPA, OSHA AND DOT STANDARDS**

17.1 Documentation of contractor's policies for conforming to EPA, OSHA, and DOT regulation must be included with bid proposal. Include at least the following:

17.1.1 All operating policies for crew members to handle preservatives and disposing of empty containers used during reinforcing and pole treatment.

17.1.2 Standards for truck - mounted equipment to provide safe storage and pumping of internal treatment.

17.1.3 Standards for labeling trucks properly.

17.1.4 Material safety data sheets must be supplied for all preservatives used.

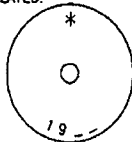
17.2 Contractor personnel must wear prescribed safety clothing, safety equipment and observe safe practices according to the specification referred to above.

**18.0 TEST RESULTS**

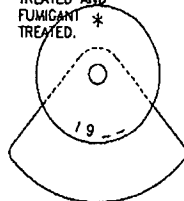
Any product or system being proposed which has not been previously approved by the Company, must have destructive test results included with the proposal. All test to be verified by independent testing if required by Company.

## APPENDIX A

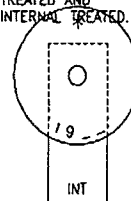
1. GROUND LINE TREATED.



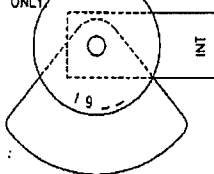
2. GROUND LINE TREATED AND FUMIGANT TREATED.



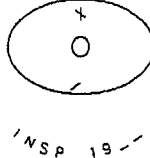
3. GROUND LINE TREATED AND INTERNAL TREATED.



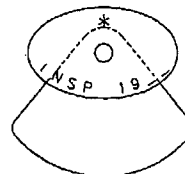
4. GROUND LINE TREATED, WOODFUMED AND INTERNAL TREATED OR WOODFUMED AND INTERNAL TREATED ONLY.



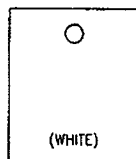
5. VISUAL BUT NOT GROUND LINE TREATED (VISUAL OR SOUND AND BORE).



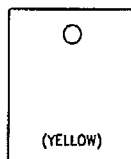
6. FUMIGANT TREATED ONLY.



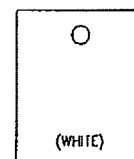
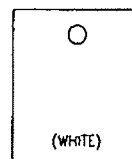
7. REJECT-POLE DOES NOT MEET CP&L STRENGTH REQUIREMENTS AND SHOULD BE REPLACED.



8. REJECT-POLE DOES NOT MEET CP&L STRENGTH REQUIREMENTS, BUT CAN BE GROUND LINE TREATED AND REINFORCED.



9. REJECT-POLE DOES NOT MEET CP&L STRENGTH REQUIREMENTS, SHALL NOT BE CLIMBED, AND SHOULD BE REPLACED AS SOON AS POSSIBLE.



## NOTES:

1. ALL OF THE INSPECTION TAGS SHOWN ABOVE ARE ALUMINUM.
2. INSPECTION TAGS 7, 8 AND 9 SHOWN ABOVE ARE PAINTED THE COLOR INDICATED ON THE TAG.
3. INSPECTION TAGS 7, 8 AND 9 (REJECT TAGS) ARE ATTACHED AND CENTERED ON EXISTING POLES 2" BELOW THE DIS NUMBER. IF FOUND, REPORT TO LOCAL OPERATIONS CENTER.

## POLE INSPECTION TAGS

**FPC – CP&L Uniform & Appearance Guidelines  
For Pole Inspection, Treatment, & Reinforcement Contractors**

**Appearance:**

**Personal appearance** must be neat and clean.

**Facial hair** must be neat and trimmed (trimmed beards are allowed)

**Long hair** must be restrained (i.e., braided or tied)

**Uniform:**

**Shirt** – Uniform shirt with Contractor's Logo shall be worn at all times with the shirttail tucked into the pants. T-shirts with the Contractor's Logo are acceptable as a uniform shirt. No tank tops or sleeveless shirts shall be allowed.

**Jackets** when worn must display the Contractor's Logo.

**Pants** shall be full length; Black, Blue, Khaki, or Grey in color and must be hemmed.

**Coveralls** when worn must display the Contractor's Logo.

**Hard Hats** are part of the uniform and must display the Contractor's Logo.

**Shoes** must be hard toed and have hard soles.

**Notes:**

Uniforms must meet all applicable OSHA requirements and regulations.

Pants, shirts, coveralls, and jackets must not have holes or be soiled and must be neat in appearance.

New Contractor employees must be wearing an appropriate uniform within 30 days.

During the initial 30 days, they will be expected to wear clothes that meet all OSHA regulations and present a professional image.

These rules must be followed at all times by Contractor employees while working on the FPC or CP&L distribution system.

**FPC - CP&L**  
**POLE INSPECTION, TREATMENT, & REINFORCEMENT CONTRACTORS**  
**MONTHLY SAFETY INFORMATION FORM**  
(PLEASE SUBMIT BY THE 10<sup>TH</sup> OF THE MONTH)

NAME OF CONTRACTOR: \_\_\_\_\_  
(Please use corporate name)

MONTH BEING REPORTED: \_\_\_\_\_

	<u>Month</u>	<u>Year-To-Date</u>
1. Total number of accidents which did not result in a lost work day case for all of the personnel which work on or support CP&L's or FPC's distribution system.	_____	_____
2. Total number of lost work day cases for all of the personnel which work on or support CP&L's or FPC's distribution system.	_____	_____
3. For the lost work day cases reported in #2, please list the total number of full days away from work during the month: (If lost days are continuing, please cut off at end of month and forward the additional days on following reports.)	_____	_____
4. Total number of manhours worked on or in support of CP&L's or FPC's distribution system.	_____	_____
5. Total number of fatalities.	_____	_____

SUBMITTED BY

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Tel. No. \_\_\_\_\_

SEND REPORT TO: FPC - Kevin Sullivan, FPC, 2600 Lake Lucien Drive, Suite 400, MT3B, Maitland, FL 32751-7234; or FAX to (407) 475-2210, or E-Mail kevin.c.sullivan@fpc.com

CP&L - Donald Gower, CP&L, P. O. Box 1551 (OHS 5), Raleigh, NC 27602  
or FAX to (919) 546-4699 or E-Mail donald.gower@cplc.com

**CP&L 2001 RATES**  
**POLE INSPECTION & TREATMENT**

- Data reporting and collection shall be collected via use of field hand-held device or laptop computers.
- Per unit price will include all data collection, data reporting and notifications, all undertakings as stipulated in the In-Service Wood Pole Inspection and Remedial Treatment Specifications document, or as listed in the Pole Inspection, Treatment, & Reinforcement Work Scope document.
- Items 1, 2, 3, & 4 below are all-inclusive prices that include inspection and re-stenciling missing pole numbers for each pole

		Northern	Southern	Eastern	Western
1.	Excavate with internal treatment (wood fume and/or hollow heart)	\$ 34.50	\$ 34.50	\$ 31.35	\$ 42.60
2.	Excavate without internal treatment	\$ 23.50	\$ 23.50	\$ 20.35	\$ 31.60
3.	Non Excavate with internal treatment (wood fume and/or hollow heart)	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00
4.	Non Excavate without internal treatment	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00
5.	Visual Inspection, no other work required	\$ 4.00	\$ 4.00	\$ 4.00	\$ 4.00
6.	Visual Inspection, pole rejected	\$ 4.00	\$ 4.00	\$ 4.00	\$ 4.00
7.	Visual Inspection, pole rejected; sound & bore	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00
8.	Visual Inspection, pole rejected; sound & bore; excavated	\$ 22.50	\$ 22.50	\$ 19.35	\$ 30.60
9.	Groundwire Repair	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00
10.	Install Guy Markers	\$ 3.50	\$ 3.50	\$ 3.50	\$ 3.50
11.	Install Groundwire Molding	\$ 2.86	\$ 2.86	\$ 2.86	\$ 2.86
12.	Extended Visual, at CP&L's request	\$ 1.25	\$ 1.25	\$ 1.25	\$ 1.25

Rates are subject to the yearly Economic Cost Index increase, effective January 1, 2002.

***FPC 2001 RATES***  
***POLE INSPECTION & TREATMENT***

- Data reporting and collection shall be collected via use of field hand-held device or laptop computers.
- Per unit price will include all data collection, data reporting and notifications, all undertakings as stipulated in the In-Service Wood Pole Inspection and Remedial Treatment Specifications document or as listed in the Pole Inspection, Treatment, & Reinforcement Work Scope document.
- Items 1, 2, 3, & 4 below are all-inclusive prices that include inspection and re-stenciling missing pole numbers for each pole

		Coastal	Central
1.	Excavate with internal treatment (wood fume and/or hollow heart)	\$ 25.79	\$ 25.79
2.	Excavate without internal treatment	\$ 17.95	\$ 17.95
3.	Non Excavate with internal treatment (wood fume and/or hollow heart)	\$ 13.30	\$ 13.30
4.	Non Excavate without internal treatment	\$ 4.96	\$ 4.96
5.	Visual Inspection, no other work required	\$ 4.60	\$ 4.60
6.	Visual Inspection, pole rejected	\$ 4.60	\$ 4.60
7.	Visual Inspection, pole rejected; sound & bore	\$ 4.60	\$ 4.60
8.	Visual Inspection, pole rejected; sound & bore; excavated	\$ 15.28	\$ 15.28
9.	Groundwire Repair	\$ 8.46	\$ 8.46
10.	Install Guy Markers	\$ 3.62	\$ 3.62
11.	Install Groundwire Molding	\$ 2.86	\$ 2.86
12.	Extended Visual, at FPC's request	\$ 2.25	\$ 2.25

Rates are subject to the yearly Economic Cost Index increase, effective January 1, 2002.

## **CP&L 2001 RATES POLE REINFORCEMENT**

- Data reporting and collection shall be collected via use of field hand-held device or laptop computers.
- Per unit price will include all data collection, data reporting and notifications, all undertakings as stipulated in the Wood Pole Reinforcement document or as listed in the Pole Inspection, Treatment, & Reinforcement Work Scope document.
- One all-inclusive fee to include internal treatment (hollow heart), fumigant treatment, and reinforcement of pole:

### **TRUSS SIZE:**

#### **Single Truss**

6X10	\$ 259 per truss
7X10	\$ 263 per truss
8X10	\$ 277 per truss
9X10	\$ 314 per truss
980X10	\$ 339 per truss
1080X11	\$ 378 per truss
1180X11	\$ 402 per truss
1280X11	\$ 429 per truss
1380X11	\$ 465 per truss
1480X11	\$ 487 per truss
1580X12	\$ 527 per truss
1680X12	\$ 543 per truss

#### **Double Truss**

2-9X10	\$ 499 per installation
2-980X10	\$ 546 per installation
2-1080X11	\$ 622 per installation
2-1180X11	\$ 668 per installation
2-1280X11	\$ 718 per installation
2-1380X11	\$ 770 per installation
2-1480X11	\$ 816 per installation
2-1580X12	\$ 896 per installation
2-1680X12	\$ 925 per installation

### **PROPOSED MISCELLANEOUS CATEGORY**

1. Trip charge, pole has been replaced by CP&L: \$ 45.00 per pole.
2. Rejected Pole charge, pole is not suitable for reinforcing \$ 45.00 per pole. (Only applicable where the original pole inspection was performed by someone other than Osmose)

### **TERM of RATES**

The above rates are valid for CP&L's Northern, Eastern, and Southern Regions.  
Rates are subject to the yearly Economic Cost Index increase, effective January 1, 2002.

#### **Note:**

No charge to CP&L in cases where reinforcing crew determines that pole is not suitable for reinforcing, and shall be rejected if original inspection was done by Osmose.

## **CP&L 2001 RATES POLE REINFORCEMENT**

- Data reporting and collection shall be collected via use of field hand-held device or laptop computers.
- Per unit price will include all data collection, data reporting and notifications, all undertakings as stipulated in the Wood Pole Reinforcement document or as listed in the Pole Inspection, Treatment, & Reinforcement Work Scope document.
- One all-inclusive fee to include internal treatment (hollow heart), fumigant treatment, and reinforcement of pole:

### **TRUSS SIZE:**

#### **Single Truss**

6X10	\$ 319 per truss
7X10	\$ 323 per truss
8X10	\$ 336 per truss
9X10	\$ 384 per truss
980X10	\$ 409 per truss
1080X11	\$ 455 per truss
1180X11	\$ 486 per truss
1280X11	\$ 521 per truss
1380X11	\$ 579 per truss
1480X11	\$ 604 per truss
1580X12	\$ 647 per truss
1680X12	\$ 667 per truss

#### **Double Truss**

2-9X10	\$ 627 per installation
2-980X10	\$ 674 per installation
2-1080X11	\$ 766 per installation
2-1180X11	\$ 832 per installation
2-1280X11	\$ 906 per installation
2-1380X11	\$ 989 per installation
2-1480X11	\$ 1042 per installation
2-1580X12	\$ 1128 per installation
2-1680X12	\$ 1165 per installation

### **PROPOSED MISCELLANEOUS CATERGORY**

1. Trip charge, pole has been replaced by CP&L: \$ 45.00 per pole.
2. Rejected Pole charge, pole is not suitable for reinforcing \$ 45.00 per pole. (Only applicable where the original pole inspection was performed by someone other than Osmose)

### **TERM of RATES**

The above rates are valid for CP&L's Western Region.

Rates are subject to the yearly Economic Cost Index increase, effective January 1, 2002.

#### **Note:**

No charge to CP&L in cases where reinforcing crew determines that pole is not suitable for reinforcing, and shall be rejected if original inspection was done by Osmose.



## ***FPC 2001 RATES POLE REINFORCEMENT***

- Data reporting and collection shall be collected via use of field hand-held device or laptop computers.
- Per unit price will include all data collection, data reporting and notifications, all undertakings as stipulated in the Wood Pole Reinforcement document or as listed in the Pole Inspection, Treatment, & Reinforcement Work Scope document.
- One all-inclusive fee to include internal treatment (hollow heart), fumigant treatment, and reinforcement of pole:

### **TRUSS SIZE:**

#### **Single Truss**

6X10	\$ 240 per truss
7X10	\$ 244 per truss
8X10	\$ 258 per truss
9X10	\$ 291 per truss
980X10	\$ 318 per truss
1080X11	\$ 356 per truss
1180X11	\$ 377 per truss
1280X11	\$ 400 per truss
1380X11	\$ 428 per truss
1480X11	\$ 450 per truss
1580X12	\$ 491 per truss
1680X12	\$ 506 per truss

#### **Double Truss**

2-9X10	\$ 438 per installation
2-980X10	\$ 488 per installation
2-1080X11	\$ 561 per installation
2-1180X11	\$ 602 per installation
2-1280X11	\$ 646 per installation
2-1380X11	\$ 692 per installation
2-1480X11	\$ 738 per installation
2-1580X12	\$ 820 per installation
2-1680X12	\$ 849 per installation

### **PROPOSED MISCELLANEOUS CATERGORY**

1. Trip charge, pole has been replaced by FPC: \$ 24.00 per pole.
2. Rejected Pole charge, pole is not suitable for reinforcing \$ 39.00 per pole. (Only applicable where the original pole inspection was performed by someone other than Osmose)

### **TERM of RATES**

The above rates are valid for FPC's Coastal and Central Regions.

Rates are subject to the yearly Economic Cost Index increase, effective January 1, 2002.

#### **Note:**

No charge to FPC in cases where reinforcing crew determines that pole is not suitable for reinforcing, and shall be rejected if original inspection was done by Osmose.